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RICHMOND, VIRGINIA

C.I. REPORT

July 31, 1990

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ALPHABETICAL INDEX OF BRANDS

BRAND	SIZE	PAGE NO.*	COMPANY**
Alpine	K-FM	54	PM
Alpine Lights	K-FM	53	PM
Alpine Lights	100M	60	PM
Alpine	100M	61	PM
American Filters	K-F	52	A
American Filters	100	59	A
American Lights	K-F	50	A
American Lights	100	57	A
Barclay	K-F	9	BW
Barclay (Box)	L-F	64	BW
Barclay	100	24	BW
Belair	K-FM	19	BW
Belair	100M	35	BW
Benson & Hedges (Box)	K-F	64	PM
Benson & Hedges	100	30	PM
Benson & Hedges Men.	100M	38	PM
Benson & Hedges (Box)	100	64	PM
Benson & Hedges Men. (Box)	100M	66	PM
Benson & Hedges Lights	100	27	PM
Benson & Hedges Lights Men.	100M	37	PM
Benson & Hedges Lights (Box)	100	27	PM
Benson & Hedges Lts.Men. (Box)	100M	37	PM
B & H DeLuxe U.L. (Box)	100	23	PM
B & H DeLuxe U.L. Men. (Box)	100M	33	PM
B & H Multifilter	K-FC	44	PM
Bristol Lights	K-F	49	PM
Bristol Lights	K-FM	53	PM
Bristol Lights	100	57	PM
Bristol Lights	100M	61	PM
Cambridge Full Flavor	KF	51	PM
Cambridge Full Flavor	100	59	PM
Cambridge Ultra Lights	100	55	PM
Cambridge Lights	K-F	50	PM
Cambridge Lights Men.	K-FM	53	PM
Cambridge Lights	100	57	PM
Cambridge Lights Men.	100M	60	PM
Camel (Box)	L-F	64	R
Camel	R-NF	47	R
Camel	K-F	14	R
Camel Lights (Box)	L-F	46	R
Camel Lights	K-F	12	R
Camel Lights	100	5	R
Capri (Box)	100	.	BW
Capri Men. (Box)	100M	43	BW
Ultra Carlton (Box)	K-F	64	A
Carlton	K-F	8	A
Carlton Men.	K-FM	16	A
Carlton	100	22	A
Carlton (Box)	100	22	A
Carlton Men.	100M	66	A
Carlton Men. (Box)	100M	66	A
Carlton	120	31	A
Carlton Men.	120M	39	A
Century 25's	K-F	64	R
Century Lights 25's	K-F	64	R
Century 25's	100	64	R
Century Lights 25's	100	64	R
Chesterfield	R-NF	66	LG
Chesterfield King	K-NF	47	LG
Chesterfield Lights	K-F	48	LG
Chesterfield Lights	100	56	LG
Commander King Size	K-NF	47	PM
Commander Regular	K-NF	47	PM
Doral Full Flavor	K-F	51	R
Doral Full Flavor Men.	K-FM	54	R
Doral Full Flavor	100	58	R
Doral Full Flavor Menthol	100M	61	R
Doral Lights	K-F	48	R
Doral Lights Men.	K-FM	53	R
Doral Lights	100	57	R
Doral Lights Men.	100M	60	R
Doral Ultra Lights	K-F	48	R
Doral Ultra Lights	100	55	R
English Ovals (Box)	K-NF	66	PM
Eve Slim Lights (Box)	100	64	LG
Eve Slim Lts. Men. (Box)	100M	66	LG
Eve Lights (Box)	120	64	LG
Eve Lights Men. (Box)	120M	66	LG
Hi-Lite (Box)	100	64	PM
H. Tareyton	K-NF	66	A
Kent (Box)	L-F	46	LO
Kent	K-F	13	LO
Kent III	K-F	8	LO
Kent	100	28	LO
Kent Men.	100M	46	LO
Kent III	100	23	LO
Kent III (Box)	100	64	LO
Kent Golden Lts. (Box)	L-F	64	LO
Kent Golden Lts.	K-F	10	LO
Kent Golden Lts. Men.	K-FM	18	LO
Kent Golden Lts.	100	25	LO
Kent Golden Lts. Men.	100M	36	LO
Kent Golden Lts. (Box)	100	64	LO
Kool	R-NFM	66	BW
Kool (Box)	L-FM	66	BW
Kool	K-FM	21	BW
Kool Lights	K-FM	18	BW
Kool Milds	K-FM	20	BW
Kool Milds (Box)	L-FM	20	BW
Kool Ultra	K-FM	17	BW
Kool	100M	38	BW
Kool Lights	100M	34	BW
Kool Milds	100M	66	BW
Kool Ultra	100M	33	BW
Lark	K-FC	64	LG
Lark	100C	64	LG
Lark Lights	K-FC	44	LG
Lark Lights	100C	45	LG
L & M (Box)	L-F	64	LG
L & M	K-F	13	LG
L & M	100	27	LG
Lucky Strike	R-NF	47	A
Lucky Strike	K-F	14	A
Lucky Strike (Box)	K-F	64	A
Lucky Strike Lights	K-F	64	A
Lucky Strike	100	64	A
Lucky Strike Men.	100M	66	A
Lucky Strike Lights	100	64	A
Magna (Box)	L-F	50	R
Magna	K-F	50	R
Magna Lites (Box)	L-F	48	R
Magna Lites	K-F	49	R
Malibu	K-F	51	A
Malibu	K-FM	54	A
Malibu	100	58	A
Malibu Low Tar Men.	100M	61	A
Malibu Lights	K-F	48	A
Malibu Lights	100	56	A
Malibu Ultra Lights	100	55	A
Marlboro (Box)	L-F	46	PM
Marlboro	K-F	15	PM
Marlboro 25's	K-F	15	PM
Marlboro Lights	K-F	11	PM
Marlboro Lights 25's	K-F	12	PM
Marlboro Lights (Box)	K-F	12	PM
Marlboro Lights	100	26	PM
Marlboro Lights (Box)	100	27	PM
Marlboro Lts. Men. (Box)	K-FM	19	PM
Marlboro Lts. Men. (Box)	100M	36	PM
Marlboro Men.	K-FM	20	PM
Marlboro	100	30	PM
Marlboro (Box)	100	64	PM
Max	120	64	LO
Max Men.	120M	66	LO

*Location of complete analytical data in report.

**Key: A = American; BW = Brown & Williamson; LG = Liggett Group; LO = Lorillard
PM = Philip Morris; R = Reynolds

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ALPHABETICAL INDEX OF BRANDS (cont.)

BRAND	SIZE	PAGE NO.*	COMPANY**
Merit Ultra Lts.	K-F	8	PM
Merit Ultra Lts. (Box)	K-F	8	PM
Merit Ultra Lts. (Box)	100	24	PM
Merit (Box)	K-F	10	PM
Merit	K-F	10	PM
Merit Men.	K-FM	18	PM
Merit Ultra Lts. Men.	K-FM	17	PM
Merit	100	25	PM
Merit Ultra Lts.	100	24	PM
Merit Men.	100M	36	PM
Merit Ultra Lts. Men.	100M	32	PM
More	120	31	R
More Men.	120M	39	R
More Lights (Box)	100	40	R
More Lights Men. (Box)	100M	42	R
Newport (Box)	L-FM	66	LO
Newport (Box)	100	66	LO
Newport	K-FM	21	LO
Newport (25's)	K-FM	66	LO
Newport	100M	38	LO
Newport (25's)	100M	66	LO
Newport Lights	K-FM	18	LO
Newport Lights (Box)	L-FM	66	LO
Newport Lights	100M	35	LO
Newport Lights (Box)	100M	66	LO
Newport Stripes (Box)	100	41	LO
Newport Stripes Men. (Box)	100M	43	LO
Now (Box)	L-F	64	R
Now	K-F	8	R
Now Men.	K-FM	16	R
Now	100	22	R
Now Men.	100M	32	R
Old Gold	K-NF	66	LG
Old Gold	K-F	15	LG
Old Gold Lights	K-F	64	LG
Old Gold	100	64	LG
Pall Mall	K-F	64	A
Pall Mall Lights	100	64	A
Pall Mall	K-NF	47	A
Pall Mall	100	29	A
Parliament Lights (Box)	L-F	46	PM
Parliament Lights	K-F	11	PM
Parliament Lights	100C	45	PM
P.M. International (Box)	100	64	PM
P.M. International Men. (Box)	100M	66	PM
Players (Box)	R-NF	66	PM
Players (Box)	K-F	64	PM
Players Men. (Box)	K-FM	66	PM
Players (Box)	100	64	PM
Players Men. (Box)	100M	66	PM
Players Lights 25's	K-F	66	PM
Players Lights Men. 25's	K-FM	66	PM
Players Lights 25's	100	64	PM
Players Lights Men. 25's	100M	66	PM
Pyramid	K-NF	52	LG
Pyramid Lights	K-F	49	LG
Pyramid Ultra Lights	100	56	LG
Pyramid Lights	100	58	LG
Pyramid Lights Menthol	100M	60	LG
Raleigh	K-NF	66	BW
Raleigh	K-F	14	BW
Raleigh Lights	K-F	13	BW
Raleigh Lights	100	28	BW
Raleigh	100	29	BW
Richland 25's	K-F	64	BW
Richland 25's	100	64	BW
Richland Men. 25's	K-FM	66	BW
Richland Lights 25's	K-F	8	PM
Richland Lights 25's	100	64	PM
Ritz (Box)	100	24	PM
Ritz Men. (Box)	100M	60	PM
Salem	K-FM	21	R
Salem	100M	38	R
Salem Lights	K-FM	19	R
Salem Lights	100M	35	R
Salem Ultra Lights	K-FM	17	R
Salem Ultra Lights	100M	32	R
Salem Slim Lights (Box)	100M	43	R
Saratoga (Box)	120	31	PM
Saratoga Men. (Box)	120M	39	PM
Satin	100	28	LO
Satin Men.	100M	37	LO
Savvy Ultra Lights	100	55	LG
Savvy Lights	100	56	LG
Savvy Lights Menthol	100M	60	LG
Silva Thins	100	64	A
Silva Thins Men.	100M	66	A
Spring	100M	66	LO
St. Moritz	100	64	LG
St. Moritz Men.	100M	65	LG
Tall	120	64	A
Tall Men.	120M	66	A
Tareyton	K-FC	44	A
Tareyton	100C	45	A
Tareyton Lights	K-FC	44	A
Tareyton Long Lights	100C	45	A
Triumph	K-F	64	LO
Triumph Men.	K-FM	66	LO
Triumph	100	64	LO
Triumph Men.	100M	66	LO
True	K-F	9	LG
True	100	25	LG
True Men.	K-FM	16	LG
True Men.	100M	34	LG
Vantage	K-F	10	R
Vantage Men.	K-FM	19	R
Vantage	100	25	R
Vantage Men.	100M	34	R
Vantage Ultra Lts.	K-F	9	R
Vantage Ultra Lts.	100	23	R
Viceroy	K-F	52	BW
Viceroy Lights	K-F	49	BW
Viceroy Lights	100	58	BW
Viceroy	100	59	BW
Va. Slims	100	41	PM
Va. Slims Men.	100M	43	PM
Va. Slims Lights (Box)	100	40	PM
Va. Slims UL (Box)	100	40	PM
Va. Slims UL Men. (Box)	100M	42	PM
Va. Slims Lights (Box)	120	31	PM
Va. Slims Lts. Men.(Box)	100M	42	PM
Va. Slims Lts. Men.(Box)	120M	39	PM
Va. Slims SuperSlims	100	40	PM
Va. Slims SuperSlims Men.	100M	42	PM
Winston (Box)	L-F	46	R
Winston	K-F	15	R
Winston Lights (Box)	L-F	46	R
Winston Lights	K-F	11	R
Winston Ultra Lights	K-F	9	R
Winston Lights	100	26	R
Winston Lights (Box)	100	26	R
Winston	100	30	R
Winston Ultra Lights	100	22	R

*Location of complete analytical data in report.
**Key: A = American; BW = Brown & Williamson; LG = Liggett Group; LO = Lorillard; PM = Philip Morris; R = Reynolds

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C.I. HIGHLIGHTS
July, 1990

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NEW BRANDS

Brown & Williamson
Kool DeLuxe Lights (Box) 83 & 100
Kool DeLuxe Ultra Lights (Box) 83 & 100

Brown & Williamson is test marketing Kool DeLuxe Lights (Box) 83 & 100 and Kool DeLuxe Ultra Lights (Box) 83 & 100 cigarettes in Hawaii. The Lights cigarettes deliver 10 mg tar, 0.6 mg nicotine and 0.5 mg smoke menthol; the Ultra Lights cigarettes deliver 6 mg tar, 0.6 mg nicotine and 0.35 mg smoke menthol. Kool Lights 85 and 100 cigarettes currently on the market have a typical CA filter; Kool Ultra Lights 85 and 100 cigarettes currently on the market have an Actron filter.

American Tobacco Co.
Montclair Ultra Lights 100

American Tobacco is distributing Montclair Ultra Lights 100 cigarettes. This brand delivers 6 mg tar and 0.5 mg nicotine. American Tobacco now has four versions of Montclair on the market: Montclair Lights 100 (plain and menthol), Montclair Full Flavor 100 and Montclair Ultra Lights 100. These cigarettes sell at subgeneric prices.

BRAND MODIFICATIONS

R. J. Reynolds
Camel 83 (Box)

Camel 83 (Box) cigarettes are being marketed in North Carolina and New York by R. J. Reynolds. This version will probably replace Camel 80 (Box). This new version delivers 18 mg tar and 1.2 mg nicotine; whereas, the Camel 80 (Box) product delivered 15 mg tar and 1 mg nicotine. The filter length and rod length of the 83 mm version is 2 mm longer than the 80 mm product currently on the market. A smaller circumference was noted on the 83 mm version. An increase in tobacco weight and lower ventilation were observed. The composition of the cigarette paper is wood pulp and flax fibers.

R. J. Reynolds
Camel Lights 83 (Box)

Camel Lights 83 (Box) cigarettes are being marketed in Louisville by R. J. Reynolds. This version will probably replace Camel Lights 80 (Box). The filter length is 8 mm longer and the rod length is 4 mm shorter than the Camel Lights 80 (Box) product currently on the market. This new version delivers 11 mg tar and 0.7 mg nicotine; whereas, the Camel Lights 80 (Box) product delivered 10 mg tar and 0.6 mg nicotine. A smaller circumference was also noted on this new version. The composition of the cigarette paper is wood pulp and flax fibers.

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BRAND MODIFICATIONS (cont.)

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R. J. Reynolds
Magna 83 (Box)

Magna 83 (Box) cigarettes are being marketed in Virginia, Washington, North Carolina and Georgia by R. J. Reynolds. This version will probably replace Magna 80 (Box). This new version delivers 18 mg tar and 1.2 mg nicotine; whereas, the Magna 80 (Box) product delivered 14 mg tar and 0.8 mg nicotine. The filter length and rod length of the 83 mm version is 7 mm longer than the 80 mm product currently on the market. A smaller circumference was noted on this new version. The higher tobacco weight resulted from a decreased level of expanded tobacco. The higher smoke deliveries were a result of these changes. The composition of the cigarette paper is wood pulp and flax fibers.

R. J. Reynolds
Magna Lites 83 (Box)

Magna Lites 83 (Box) cigarettes are being marketed in Louisville by R. J. Reynolds. This version will probably replace Magna Lites 80 (Box). This new version delivers 13 mg tar and 0.9 mg nicotine; whereas, the Magna Lites 80 (Box) product delivered 9 mg tar and 0.7 mg nicotine. The filter length is 8 mm longer and the rod length is 4 mm shorter than the 80 (Box) product. A smaller circumference was noted on the 83 mm version. The composition of the cigarette paper is wood pulp and flax fibers.

American Tobacco Co.
American Lights 100

A lower tobacco weight (0.865 to 0.826 g) correlated with lower tar (12 to 11 mg) and nicotine (1.0 to 0.9 mg) deliveries and the lower puff count (10.6 to 9.8) of American Lights 100 cigarettes. A lower rod density (0.257 to 0.246 g/cc) was also observed.

Liggett Group
L & M 100

Filter ventilation was added (0 to 36%) to L & M 100 cigarettes. A change from a mechanically perforated cigarette paper (119 to 68 CU) to an inherently porous cigarette paper was noted. Lower tar (13 to 11 mg) and CO (12 to 11 mg) deliveries and a lower total RTD (121 to 99 mm of H_2O) correlated with these changes. A higher puff count (8 to 9) and longer static burning time (7 to 8 min.) were also noted.

Lorillard
Kent Golden Lights 85

The type of filter perforation was changed from porous to laser for Kent Golden Lights 85 cigarettes. This change resulted in lower ventilation (38 to 31%) and higher total RTD (98 to 137 mm of H_2O) and filter RTD (86 to 113 mm of H_2O). A higher CO delivery (8 to 10 mg) was noted.

Lorillard
Kent Golden Lights Menthol 85

The type of filter perforation has changed from porous to laser for Kent Golden Lights Menthol 85 cigarettes. This change resulted in lower ventilation (37 to 29%) and higher total RTD (100 to 133 mm) and filter RTD (84 to 114 mm). A higher CO delivery (8 to 9 mg) was noted.

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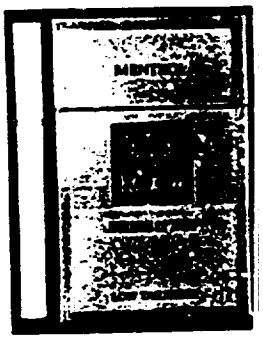
NEW BRANDS



BROWN & WILLIAMSON
KOOL DELUXE LIGHTS (BOX) 83

Brown & Williamson is test marketing Kool DeLuxe Lights 83 (Box) cigarettes in Hawaii. The higher alkaloid level is indicative of a different blend for the new product.

	Marlboro Lights Men. 83 (Box)	Kool DeLuxe Lights 83 (Box)	Kool Lights 83
Smoke			
Butt Length, mm	34	35	35
FTC Tar, mg/cigt.	9.5	9.9	9.8
Nicotine, mg/cigt.	0.77	0.86	0.68
Puffs/cigt.	7.9	8.2	7.7
Filtration Eff., %	53	58	55
Filler Rod TPM, mg/cigt.	26.9	30.3	27.2
CO, mg/cigt.	9.5	9.6	8.2
Cigarette			
Total RTD, mm of H_2O	107	127	115
Static Burn. Time, min.	7.3	7.5	7.3
Length, mm	83.0	83.4	83.8
Circumference, mm	25.0	24.9	24.9
Paper			
Component Type/Percent	Cit./0.5	Cit./0.3	Cit./0.3
Permeability, ml/cm² x min.	47	23	43
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	87	111	105
Length, mm	27.1	27.1	26.9
Weight, g	0.17	0.17	0.17
Fiber denier/shape	3.9/Y	2.4/Y	2.5/Y
Tipping Paper Length, mm/Color	31/White	32/White	32/Cork
Ventilation, %	27	31	34
Type/Rows of Holes	L/2	HL/1	HL/1
Filler			
Total alkaloids, % (DWB)	2.19	2.44	2.23
Total red. sugars, % (DWB)	8.3	6.0	6.4
Wt. of tob., g (12.5% OV)	0.647	0.652	0.651
Rod Density, g/cc	0.233	0.234	0.232
Reconstituted Tob., %	22	14	13
E.S., %	None	7	10
Expanded Tobacco, %	15	11	11
Menthol, mg/cigt.			
Smoke	0.56	0.45	0.35
Filler	2.6	2.6	2.3
Filter	1.6	1.7	1.2

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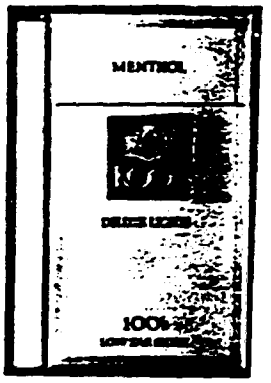
VI

BROWN & WILLIAMSON
KOOL DELUXE LIGHTS (BOX) 100

Brown & Williamson is test marketing **Kool DeLuxe Lights 100 (Box)** cigarettes in Hawaii. The higher alkaloid level is indicative of a different blend in the new product. Higher tar and nicotine deliveries were observed.



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	Marlboro Lights Men. 100 (Box)	Kool DeLuxe Lights 100 (Box)	Kool Lights 100 (SP)
Smoke			
Butt Length, mm	39	39	39
FTC Tar, mg/cigt.	9.6	10.4	8.4
Nicotine, mg/cigt.	0.77	0.92	0.73
Puffs/cigt.	9.8	9.7	9.5
Filtration Eff., %	54	58	57
Filler Rod TPM, mg/cigt.	25.0	32.6	29.0
CO, mg/cigt.	10.2	9.7	8.7
Cigarette			
Total RTD, mm of H_2O	116	130	117
Static Burn. Time, min.	7.9	7.8	6.9
Length, mm	98.7	97.2	98.8
Circumference, mm	25.0	24.9	24.9
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.9	0.4	0.5
Permeability, ml/cm^2 x min.	48	24	22
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	101	111	106
Length, mm	31.4	27.1	28.8
Weight, g	0.19	0.16	0.18
Fiber denier/shape	3.9/Y	2.4/Y	3.4/Y
Tipping Paper Length, mm/Color	36/White	36/White	36/Cork
Ventilation, %	31	33	38
Type/Rows of Holes	L/2	MP/4	MP/3
Filler			
Total alkaloids, % (DWB)	2.14	2.56	2.30
Total red. sugars, % (DWB)	8.3	6.2	7.0
Wt. of tob., g (12.5% OV)	0.785	0.810	0.795
Rod Density, g/cc	0.235	0.235	0.231
Reconstituted Tob., %	22	14	13
E.S., %	None	7	10
Expanded Tobacco, %	15	11	11
Menthol, mg/cigt.			
Smoke	0.50	0.55	0.34
Filler	2.9	4.0	2.8
Filter	2.0	1.7	1.3

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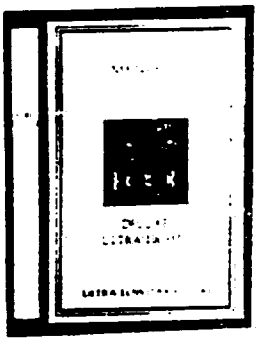
BROWN & WILLIAMSON
KOOL DELUXE ULTRA LIGHTS (BOX) 83

Brown & Williamson is test marketing Kool DeLuxe Ultra Lights 83 (Box) cigarettes in Hawaii. These cigarettes have a 27 mm CA filter; whereas, Kool Ultra 85 utilizes an Actron filter. The higher alkaloid level is indicative of a different blend for the new product.



	Kool DeLuxe Ultra Lights 83 (Box)	Kool Ultra 85 (Box)
Smoke		
Butt Length, mm	35	35
FTC Tar, mg/cigt.	5.8	5.7
Nicotine, mg/cigt.	0.54	0.5
Puffs/cigt.	8.1	6.7
Filtration Eff., %	62	66
Filler Rod TPM, mg/cigt.	31.8	26.4
CO, mg/cigt.	6.0	4.9
Cigarette		
Total RTD, mm of H_2O	122	34
Static Burn. Time, min.	7.3	7.1
Length, mm	83.6	83.9
Circumference, mm	24.9	24.9
Paper		
Component Type	Cit.	Cit.
Component Percent	0.4	0.9
Permeability, ml/cm² x min.	24	46
Filter		
Type	CA	CA
RTD, mm of H_2O	137	86
Length, mm	27.2	27.0
Weight, g	0.18	0.19
Fiber denier/shape	2.4/Y	4.0/Y
Tipping Paper Length, mm/Color	32/White	32/Cork
Ventilation, %	54	75
Type/Rows of Holes	HL/1	MP/3
Filler		
Total alkaloids, % (DWB)	2.52	2.27
Total red. sugars, % (DWB)	5.6	6.6
Wt. of tob., g (12.5% OV)	0.651	0.649
Rod Density, g/cc	0.234	0.232
Reconstituted Tob., %	14	13
E.S., %	7	10
Expanded Tobacco, %	11	11
Menthol, mg/cigt.		
Smoke	0.30	0.10
Filler	2.6	2.1
Filter	2.6	1.3

*Smoked using modified holder.

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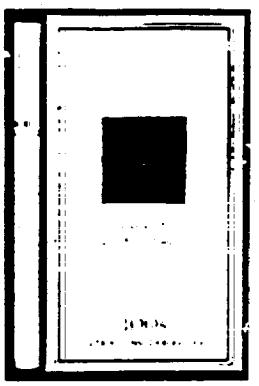
VIII

BROWN & WILLIAMSON
KOOL DELUXE ULTRA LIGHTS (BOX) 100



Brown & Williamson is test marketing Kool DeLuxe Ultra Lights 100 (Box) cigarettes in Hawaii. These cigarettes have a 27 mm CA filter; whereas, Kool Ultra 100 utilizes an Actron filter. The higher alkaloid level is indicative of a different blend for the new product.

	B & H DeLuxe Ultra Lights 100 Men. (Box)	Kool DeLuxe Ultra Lights 100 (Box)	Kool Ultra 100 (SP)
Smoke			
Butt Length, mm	39	39	39*
FTC Tar, mg/cigt.	5.6	6.5	6.3
Nicotine, mg/cigt.	0.45	0.61	0.59
Puffs/cigt.	9.1	9.4	9.3
Filtration Eff., %	62	60	63
Filler Rod TPM, mg/cigt.	26.5	29.4	23.0
CO, mg/cigt.	6.4	5.9	6.4
Cigarette			
Total RTD, mm of H_2O	117	114	58
Static Burn. Time, min.	6.7	7.5	6.7
Length, mm	98.4	97.3	99.0
Circumference, mm	24.1	25.0	24.9
Paper			
Component Type/Percent	Cit./1.5	Cit./0.4	Cit./0.9
Permeability, ml/cm² x min.	44	46	46
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	140	119	88
Length, mm	31.5	27.0	26.9
Weight, g	0.19	0.17	0.20
Fiber denier/shape	3.0/Y	2.4/Y	4.0/Y
Tipping Paper Length, mm/Color	36/White	36/White	36/Cork
Ventilation, %	55	51	57
Type/Rows of Holes	L/2	MP/4	MP/1
Filler			
Total alkaloids, % (DWB)	1.94	2.55	2.32
Total red. sugars, % (DWB)	7.6	5.5	6.7
Wt. of tob., g (12.5% OV)	0.713	0.818	0.819
Rod Density, g/cc	0.230	0.234	0.231
Reconstituted Tob., %	22	14	13
E.S., %	3	7	10
Expanded Tobacco, %	19	11	11
Menthol, mg/cigt.			
Smoke	0.40	0.41	0.23
Filler	3.6	4.4	2.9
Filter	2.0	1.9	1.4

*Smoked using modified holder.

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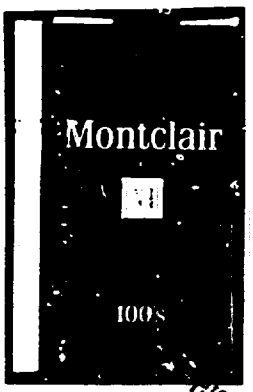
AMERICAN TOBACCO CO.
MONTCLAIR ULTRA LIGHTS 100

American Tobacco is distributing Montclair Ultra Lights 100 cigarettes. There are currently four versions of Montclair cigarettes on the market. These cigarettes sell at subgeneric prices.



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	Montclair Ultra Lights 100	Cambridge Ultra Lights 100
Smoke		
Butt Length, mm	38	38
FTC Tar, mg/cigt.	6.2	6.1
Nicotine, mg/cigt.	0.49	0.48
Puffs/cigt.	9.2	10.3
Filtration Eff., %	63	69
Filler Rod TPM, mg/cigt.	25.0	27.7
CO, mg/cigt.	7.3	6.1
Cigarette		
Total RTD, mm of H_2O	129	111
Static Burn. Time, min.	6.5	7.6
Length, mm	99.3	99.2
Circumference, mm	24.5	25.0
Paper		
Component Type	Cit.	Cit.
Component Percent	0.8	1.3
Permeability, ml/cm² x min.	42	46
Filter		
Type	CA	CA
RTD, mm of H_2O	127	147
Length, mm	26.6	31.3
Weight, g	0.17	0.21
Fiber denier/shape	2.6/Y	2.9/Y
Tipping Paper Length, mm/Color	35/White	36/White
Ventilation, %	46	61
Type/Rows of Holes	L/2	L/2
Filler		
Total alkaloids, % (DWB)	2.03	2.03
Total red. sugars, % (DWB)	6.3	7.3
Wt. of tob., g (12.5% OV)	0.751	0.784
Rod Density, g/cc	0.216	0.233
Reconstituted Tob., %	24	22
E.S., %	None	3
Expanded Tobacco, %	24	15

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BRAND MODIFICATIONS

R. J. REYNOLDS
CAMEL 83 (BOX)

Camel 83 (Box) cigarettes are being marketed in North Carolina and New York by R. J. Reynolds. This version will probably replace Camel 80 (Box). This new version delivers 18 mg tar and 1.2 mg nicotine; whereas, the Camel 80 (Box) product delivered 15 mg tar and 1 mg nicotine. The filter length and rod length of the 83 mm version is 2 mm longer than the 80 mm product currently on the market. A smaller circumference was noted on the 83 mm version. An increase in tobacco weight and lower ventilation were observed. The composition of the cigarette paper is wood pulp and flax fibers.

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	Camel 80 (Box)	Camel 83 (Box)	Camel 83 (ESP)
Smoke			
Butt Length, mm	26	28	
FTC Tar, mg/cigt.	15.3	17.7	
Nicotine, mg/cigt.	0.99	1.17	
Puffs/cigt.	7.9	9.6	8.
Filtration Eff., %	46	46	47
Filler Rod TPM, mg/cigt.	30.4	31.0	28.3
CO, mg/cigt.	14.4	16.7	13.0
Cigarette			
Total RTD, mm of H_2O	120	124	105
Static Burn. Time, min.	7.9	9.1	7.1
Length, mm	79.1	82.6	84.0
Circumference, mm	24.9	24.6	25.0
Firmness, mm	2.2	2.3	2.7
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.6	0.5	0.9
Permeability, ml/cm² x min.	38	31	38
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	71	69	67
Length, mm	19.0	21.0	21.1
Weight, g	0.13	0.13	0.13
Fiber denier/shape	2.5/Y	3.7/Y	3.0/Y
Tipping Paper Length, mm/Color	23/Cork	25/Cork	25/Cork
Ventilation, %	None	6	14
Type/Rows of Holes	-	L/1	ESP
Filler			
Total alkaloids, % (DWB)	1.92	1.96	1.95
Total red. sugars, % (DWB)	7.3	7.2	6.9
Wt. of tob., g (12.5% OV)	0.700	0.773	0.716
Rod Density, g/cc	0.236	0.261	0.228
Reconstituted Tob., %	25	25	25
E.S., %	None	None	None
Expanded Tobacco, %	16	16	16

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R. J. REYNOLDS
CAMEL LIGHTS 83 (BOX)

Camel Lights 83 (Box) cigarettes are being marketed in Louisville by R. J. Reynolds. This version will probably replace Camel Lights 80 (Box). The filter length is 6 mm longer and the rod length is 4 mm shorter than the Camel Lights 80 (Box) product carefully on market. This new version delivers 11 mg tar and 0.7 mg nicotine; whereas, the Camel Lights 80 (Box) product delivered 10 mg tar and 0.6 mg nicotine. A smaller circumference was also noted on this new version. The composition of the cigarette paper is wood pulp and flax fibers.

	Camel Lights 80 (Box)	Camel Lights 83 (Box)	Camel Lights 85 (SP)
Smoke			
Butt Length, mm	30	34	34
FTC Tar, mg/cigt.	9.7	10.6	11.2
Nicotine, mg/cigt.	0.61	0.73	0.79
Puffs/cigt.	7.6	8.1	7.5
Filtration Eff., %	58	61	59
Filler Rod TPM, mg/cigt.	29.0	29.7	28.8
CO, mg/cigt.	11.7	12.0	11.8
Cigarette			
Total RTD, mm of H_2O	144	141	115
Static Burn. Time, min.	7.3	7.9	7.6
Length, mm	79.1	83.2	84.2
Circumference, mm	25.0	24.6	25.0
Firmness, mm	3.1	2.8	3.1
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.5	0.5	0.5
Permeability, ml/cm² x min.	26	25	34
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	116	119	85
Length, mm	19.0	27.0	26.9
Weight, g	0.14	0.17	0.17
Fiber denier/shape	2.7/Y	3.6/Y	2.4/Y
Tipping Paper Length, mm/Color	27/Cork	31/Cork	31/Cork
Ventilation, %	23	16	15
Type/Rows of Holes	MP/2	L/2	L/2
Filler			
Total alkaloids, % (DWB)	1.85	1.84	1.90
Total red. sugars, % (DWB)	7.4	8.0	7.0
Wt. of tob., g (12.5% OV)	0.650	0.635	0.636
Rod Density, g/cc	0.217	0.235	0.223
Reconstituted Tob., %	25	25	25
E.S., %	None	None	None
Expanded Tobacco, %	16	16	16

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R. J. REYNOLDS
MAGNA 83 (BOX)

Magna 83 (Box) cigarettes are being marketed in Virginia, Washington, Ohio, North Carolina and Georgia by R. J. Reynolds. This version will probably replace Magna 80 (Box). This new version delivers 18 mg tar and 1.2 mg nicotine; whereas, the Magna 80 (Box) product delivered 14 mg tar and 0.8 mg nicotine. The filter length and rod length of the 83 mm version is 2 mm longer than the 80 mm product currently on the market. A smaller circumference was noted for this new version. The higher tobacco weight resulted from a decreased level of expanded tobacco. The higher smoke deliveries were a result of these changes. The composition of the cigarette paper is wood pulp and flax fibers.

	Magna 80 (Box)	Magna 83 (Box)	Magna 85 (SP)
Smoke			
Butt Length, mm	26	28	28
FTC Tar, mg/cigt.	13.5	18.1	14.5
Nicotine, mg/cigt.	0.82	1.16	0.97
Puffs/cigt.	6.5	9.5	7.6
Filtration Eff., %	45	41	50
Filler Rod TPM, mg/cigt.	25.0	31.7	27.2
CO, mg/cigt.	13.3	14.5	14.6
Cigarette			
Total RTD, mm of H_2O	115	128	118
Static Burn. Time, min.	6.5	8.6	6.8
Length, mm	78.9	83.2	83.9
Circumference, mm	25.0	24.5	25.0
Firmness, mm	2.0	2.0	3.0
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.5	0.5	0.5
Permeability, ml/cm^2 x min.	36	22	25
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	70	65	75
Length, mm	19.0	21.1	21.0
Weight, g	0.13	0.13	0.14
Fiber denier/shape	3.4/Y	3.7/Y	3.4/Y
Tipping Paper Length, mm/Color	23/Cork	25/Cork	25/Cork
Ventilation, %	None	7	9
Type/Rows of Holes	-	L/2	L/2
Filler			
Total alkaloids, % (DWB)	2.17	1.88	2.19
Total red. sugars, % (DWB)	6.6	6.9	6.5
Wt. of tob., g (12.5% OV)	0.622	0.769	0.620
Rod Density, g/cc	0.210	0.259	0.199
Reconstituted Tob., %	25	25	25
E.S., %	None	None	None
Expanded Tobacco, %	25	16	25

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R. J. REYNOLDS
MAGNA LITES 83 (BOX)

Magna Lites 83 (Box) cigarettes are being marketed in Louisville by R. J. Reynolds. This version will probably replace Magna Lites 80 (Box). This new version delivers 1.7 mg tar and 0.9 mg nicotine; whereas, the Magna Lites 80 (Box) product delivered 9 mg tar and 0.7 mg nicotine. The filter length is 8 mm longer and the rod length is 4 mm shorter than the 80 (Box) product. A smaller circumference was noted on the 83 mm version. The composition of the cigarette paper is wood pulp and flax fibers.

	Magna Lites 80 (Box)	Magna Lites 83 (Box)	Magna Lites 85 (SP)
Smoke			
Butt Length, mm	30	34	34
FTC Tar, mg/cigt.	8.8	12.9	10.9
Nicotine, mg/cigt.	0.66	0.88	0.77
Puffs/cigt.	7.5	7.8	7.4
Filtration Eff., %	58	52	57
Filler Rod TPM, mg/cigt.	30.1	30.2	30.2
CO, mg/cigt.	11.0	12.4	12.2
Cigarette			
Total RTD, mm of H_2O	139	119	118
Static Burn. Time, min.	7.0	8.0	7.3
Length, mm	78.8	82.8	83.9
Circumference, mm	25.0	24.4	25.1
Firmness, mm	3.0	2.9	2.1
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.6	0.5	0.6
Permeability, ml/cm² x min.	25	24	35
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	120	88	86
Length, mm	19.1	27.0	26.9
Weight, g	0.14	0.16	0.17
Fiber denier/shape	2.2/Y	3.6/Y	2.3/Y
Tipping Paper Length, mm/Color	27/White	31/White	31/White
Ventilation, %	27	11	18
Type/Rows of Holes	L/1	L/2	L/2
Filler			
Total alkaloids, % (DWB)	1.87	1.91	1.92
Total red. sugars, % (DWB)	7.1	8.0	6.9
Wt. of tob., g (12.5% OV)	0.649	0.636	0.646
Rod Density, g/cc	0.219	0.240	0.226
Reconstituted Tob., %	25	25	25
E.S., %	None	None	None
Expanded Tobacco, %	16	16	16

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XIV

AMERICAN TOBACCO CO.
AMERICAN LIGHTS 100

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A lower tobacco weight correlated with lower tar and nicotine deliveries and the lower puff count of **American Lights 100** cigarettes. A lower rod density was also observed.

	American Lights 100	
	Previous	Present
Smoke		
Butt Length, mm	35	35
FTC Tar, mg/cigt.	12.1	11.3
Nicotine, mg/cigt.	0.98	0.89
Puffs/cigt.	10.6	9.8
CO, mg/cigt.	11.0	12.0
Cigarette		
Total RTD, mm of H_2O	123	124
Length, mm	99.4	99.4
Circumference, mm	24.1	24.1
Paper		
Permeability, ml/cm² x min.	45	45
Filter		
RTD, mm of H_2O	93	91
Filler		
Wt. of tob., g (12.5% OV)	0.865	0.826
Rod Density, g/cc	0.257	0.246
Reconstituted Tob., %	20	20
E.S., %	None	None
Expanded Tobacco, %	12	12

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LIGGETT GROUP
L & M 100

Filter ventilation was added to L & M 100 cigarettes. A change from a mechanically perforated cigarette paper to an inherently porous cigarette paper was noted. Lower tar and CO deliveries and a lower total RTD were observed. A higher puff count and longer static burning time were also noted.

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	L & M 100	
	Previous	Present
Smoke		
Butt Length	38	38
FTC Tar, mg/cigt.	12.6	10.8
Nicotine, mg/cigt.	0.92	0.89
Puffs/cigt.	8.2	9.4
CO, mg/cigt.	12.3	10.3
Cigarette		
Total RTD, mm of H_2O	121	99
Static Burn. Time, min.	6.6	7.7
Paper		
Components Type	Cit.	Cit.
Components Percent	0.9	0.6
Permeability, ml/cm^2 x min.	119	68
Filter		
RTD, mm of H_2O	69	80
Ventilation, %	None	36
Type/Rows of Holes	-	HL/1

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XVI

LORILLARD
KENT GOLDEN LIGHTS 85

The type of filter perforation was changed from porous to laser for Kent Golden Lights 85 cigarettes. This change resulted in lower ventilation and higher total RTD and filter RTD. A higher CO delivery was noted.

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	Kent Golden Lights 85	
	Previous	Present
Smoke		
Butt Length	35	35
FTC Tar, mg/cigt.	7.9	8.0
Nicotine, mg/cigt.	0.65	0.68
Puffs/cigt.	7.1	7.2
Filtration Eff., %	52	53
CO, mg/cigt.	8.0	10.2
Cigarette		
Total RTD, mm of H_2O	98	137
Paper		
Permeability, ml/cm² x min.	32	30
Filter		
RTD, mm of H_2O	86	113
Tipping paper length, mm/Color	32/White	32/White
Ventilation, %	38	31
Type/Rows of Holes	Porous	L/4

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LORILLARD
KENT GOLDEN LIGHTS MENTHOL 85

The type of filter perforation has changed from porous to laser for Kent Golden Lights Menthol 85 cigarettes. This change resulted in lower ventilation and higher total RTD and filter RTD. A higher CO delivery was noted.

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	Kent Golden Lights Menthol 85	
	Previous	Present
Smoke		
Butt Length	35	35
FTC Tar, mg/cigt.	8.1	7.7
Nicotine, mg/cigt.	0.69	0.62
Puffs/cigt.	7.4	7.1
Filtration Eff., %	51	55
CO, mg/cigt.	7.9	9.4
Cigarette		
Total RTD, mm of H_2O	100	133
Paper		
Permeability, ml/cm² x min.	27	29
Filter		
RTD, mm of H_2O	84	114
Tipping paper length, mm/Color	32/White	32/White
Ventilation, %	37	29
Type/Rows of Holes	Porous	L/4

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SMOKING MODIFICATIONS FOR BARCLAY-TYPE FILTER CIGARETTES

These brands were tested using both the standard holder and a modified holder. All smoke data are higher for these cigarettes when using a modified holder because this holder reduces the amount of ventilation through the cigarette. No other brands show the change in smoke deliveries when using a modified holder. The FTC determined that the present testing methodology does not accurately measure Brown & Williamson's Barclay and Kool Ultra cigarette smoke deliveries.

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	Barclay 80 (Box)		Barclay 85		Barclay 100	
	Standard	Modified	Standard	Modified	Standard	Modified
Butt Length, mm	35	35	35	35	39	39
FTC Tar, mg/cigt.	1.9	5.3	2.0	3.5	4.2	5.4
Nicotine, mg/cigt.	0.17	0.46	0.18	0.31	0.37	0.47
Puffs/cigt.	8.9	7.6	9.7	9.2	11.4	11.0
CO, mg/cigt.	1.3	4.7	1.2	2.0	3.1	3.3

	Kool Ultra 85		Kool Ultra 100	
	Standard	Modified	Standard	Modified
Butt Length, mm	35	35	39	39
FTC Tar, mg/cigt.	2.6	5.3	6.2	9.4
Nicotine, mg/cigt.	0.22	0.45	0.51	0.73
Puffs/cigt.	8.1	6.7	9.1	8.6
CO, mg/cigt.	2.2	4.9	6.0	6.4

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

R. J. Reynolds Cigarette Paper

The following R. J. Reynolds brands are now using a cigarette paper that contains approximately 50% wood pulp and 50% flax fibers. Previously, all Reynolds products used 100% flax cigarette paper. Monitoring of other Reynolds brands for this paper change will continue.

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	100% flax	50% flax/50% wood pulp
These brands changed in second quarter, 1990:		
Camel (Box)	May, 90	June, 90
Camel Lights (Box)	May, 90	June, 90
Magna (Box)	May, 90	June, 90
Magna Lights (Box)	May, 90	June, 90
Magna (SP)	April, 90	May, 90
Magna Lights (SP)	May, 90	June, 90
Winston 80 (Box)	May, 90	June, 90
Winston 85	May, 90	June, 90
Winston 100	May, 90	June, 90
Winston Lights 80 (Box)	April, 90	May, 90
Winston Lights 85	May, 90	June, 90
Winston Lights 100	May, 90	June, 90
Winston Lights 100 (Box)	May, 90	June, 90
Winston Ultra Lights 100	May, 90	June, 90
These brands changed in second quarter, 1989:		
Century 85	March, 89	April, 89
Century 100	March, 89	April, 89
Century Lights 85	March, 89	April, 89
Century Lights 100	March, 89	April, 89
Doral Full Flavor (Box)	March, 89	April, 89
Doral Lights 85	March, 89	April, 89
Doral Lights 100	March, 89	April, 89
Doral Ultra Lights 85	March, 89	April, 89
Doral Ultra Lights 100	March, 89	April, 89

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

CIGARETTES ON MARKET WITH TAR AND NICOTINE DATA LISTED ON PACK

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	Tar, mg/cigt.			Nicotine, mg/cigt.		
	Listed On Package	FTC Data[1]	CI Data	Listed On Package	FTC Data[1]	CI Data
Carlton 85 (Box)	0.01	*	0.0	0.002	*	0.00
Carlton Menthol 85	1	1	1	0.1	0.1	0.1
Carlton 100 (Box)	1	1	2	0.1	0.1	0.2
Carlton 100 Menthol (Box)	1	1	2	0.1	0.1	0.1
Carlton 85	1	1	2	0.1	0.1	0.2
Carlton Menthol 100	3	4	3	0.3	0.4	0.3
Carlton 100	3	3	3	0.3	0.3	0.2
Carlton Menthol 120	6	6	6	0.6	0.6	0.6
Carlton 120	6	6	6	0.6	0.6	0.6
Lucky Strike Lights 85	8	8	8	**	0.6	0.7
Lucky Strike Lights 100	9	9	9	**	0.8	0.8
Tareyton Lights 85	5	5	6	**	0.4	0.5
LORILLARD						
Triumph Menthol 85	2	4	4	0.3	0.4	0.3
Triumph 85	3	4	3	0.4	0.4	0.3
Triumph 100	4	5	6	0.5	0.5	0.5
Triumph Menthol 100	4	6	6	0.5	0.6	0.5
PHILIP MORRIS						
B&H DeLuxe Ultra Lts. 100(Box)	6	6	6	0.6	0.5	0.5
B&H DeLuxe Ultra Lts. Menthol 100 (Box)	6	5	6	0.6	0.5	0.5
Cambridge Ultra Lts. 100	5	5	4	**	0.4	0.4
Merit Ultra Lights 85	5	5	5	0.5	0.5	0.4
Merit Ultra Lights 85 (Box)	5	**	5	0.5	**	0.4
Merit Ultra Lights Men. 85	5	5	6	0.5	0.5	0.5
Merit Ultra Lights 100	6	6	6	0.6	0.4	0.5
Merit Ultra Lights 100 (Box)	6	**	7	0.6	**	0.6
Merit Ultra Lights Men. 100	6	5	5	0.6	0.5	0.4
Merit 85	8	8	8	0.6	0.6	0.6
Merit 85 (Box)	8	8	8	0.6	0.6	0.6
Merit Menthol 85	8	8	8	0.6	0.6	0.6
Merit 100	10	10	10	0.8	0.8	0.8
Merit Menthol 100	10	10	9	0.8	0.8	0.8
REYNOLDS						
Now 80 (Box)	<0.5	*	0.00	**	*	0.00
Now 85	1	1	1	**	0.1	0.1
Now Menthol 85	1	1	2	**	0.1	0.1
Now 100	2	2	3	**	0.2	0.2
Now Menthol 100	2	3	3	**	0.3	0.2
BROWN & WILLIAMSON						
Barclay 80 (Box)	3	-	-	**	-	-
Barclay 85	3	-	-	**	-	-
Barclay 100	5	-	-	**	-	-

[1]FTC data published December, 1988.
*Less than 0.5 mg tar and 0.05 mg nicotine.
**Not Listed.

2031420192

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

CIGARETTE BRANDS RANKED ACCORDING TO SIZE AND SALES[1]
PHILIP MORRIS DATA

	SALES	FTC TAR, MG/CIGT.	NICOTINE, MG/CIGT.
120 MM FILTER PLAIN			
More	0.47	15.7	1.13
VA SLIMS LIGHTS (BOX)	0.34	13.8	1.04
SARATOGA (BOX)	0.14	14.7	1.11
Carlton	0.12	6.0	0.55
120 MM FILTER MENTHOL			
More Men.	0.42	15.4	1.22
VA SLIMS LIGHTS MEN. (BOX)	0.25	13.2	0.99
Carlton Men.	0.12	5.9	0.57
SARATOGA MEN. (BOX)	0.06	13.5	1.03
100 MM FILTER PLAIN			
MARLBORO LIGHTS	1.96	10.4	0.81
MERIT ULTRA LIGHTS	1.96	6.0	0.53
MARLBORO	1.64	16.0	1.16
Winston	1.59	16.2	1.00
Winston Lights	1.44	10.4	0.74
MARLBORO LIGHTS (BOX)	1.15	10.9	0.82
Doral Lights	1.09	10.5	0.89
BENSON & HEDGES	0.80	15.8	1.14
MERIT	0.72	10.0	0.75
Doral Full Flavor	0.70	14.6	1.04
B & H DELUXE ULTRA LTS (BOX)	0.66	5.8	0.47
CAMBRIDGE LIGHTS	0.61	11.3	0.85
Now	0.60	2.5	0.22
Vantage	0.60	9.1	0.70
Doral Ultra Lights	0.59	5.5	0.49
Carlton	0.57	2.7	0.23
Vantage Ultra Lights	0.54	5.4	0.44
B & H LIGHTS	0.49	10.5	0.80
CAMBRIDGE ULTRA LIGHTS	0.43	4.4	0.38
Pall Mall	0.42	14.9	1.12
CAMBRIDGE FULL FLAVOR	0.42	16.3	1.11
Winston Ultra Lights	0.41	5.1	0.44
Pyramid Ultra Lights	0.40	5.9	0.49
Kent	0.32	12.8	0.98
Camel Lights	0.32	10.1	0.73
Kent III	0.26	5.9	0.52
Viceroy	0.25	18.2	1.33
Pyramid Lights	0.25	11.8	0.91
True	0.21	8.3	0.70
Kent Golden Lights	0.20	8.8	0.81
Malibu Lights	0.18	9.3	0.78
American Filters	0.16	16.2	1.14
BRISTOL LIGHTS	0.14	10.8	0.90
Raleigh	0.13	15.3	1.01
Viceroy Lights	0.12	13.0	0.96
Malibu Ultra Lights	0.11	5.6	0.49
Malibu	0.10	15.0	1.14
American Lights	0.10	11.3	0.89
Winston Lights (Box)	0.10	10.2	0.70
Ritz (Box)	0.09	9.4	0.77
MERIT ULTRA LIGHTS	0.09	6.5	0.56
L & M	0.06	10.8	0.89
Barclay	0.06	*	*
B & H LIGHTS 100 (BOX)	0.05	10.7	0.86
Raleigh Lights	0.04	12.6	0.96
Carlton (Box)	0.04	1.7	0.17
Satin	0.03	11.1	0.91
Savvy Lights	0.01	10.2	0.89
Savvy Ultra Lights	0.01	5.8	0.57

	SALES	FTC TAR, MG/CIGT.	NICOTINE, MG/CIGT.
100 MM FILTER MENTHOL			
Salem Lights	1.39	8.9	0.72
Salem	1.14	16.3	1.13
BENSON & HEDGES MEN.	0.89	15.7	1.11
Malibu (Low Tar) Menthol	0.84	11.5	0.92
Doral Lights Men.	0.65	9.5	0.68
Kool	0.63	16.6	1.22
Salem Ultra Lights	0.60	5.3	0.43
Newport	0.57	18.1	1.33
B & H DELUXE ULTRA LTS (BOX)	0.47	5.6	0.45
B & H LIGHTS MEN.	0.45	10.3	0.80
CAMBRIDGE LIGHTS MEN.	0.34	11.2	0.85
Now Men.	0.31	2.6	0.22
ALPINE LIGHTS	0.23	10.0	0.79
ALPINE	0.18	14.9	1.07
Doral Full Flavor Men.	0.16	15.2	1.08
True Men.	0.12	8.0	0.73
MERIT MEN.	0.12	9.6	0.77
MERIT ULTRA LIGHTS MEN.	0.12	5.1	0.44
Belair	0.11	8.9	0.65
Pyramid Lights Men.	0.10	11.5	0.90
MARLBORO LIGHTS MEN. (BOX)	0.10	9.6	0.77
Kool Lights	0.08	8.4	0.73
BRISTOL LIGHTS	0.07	12.5	0.93
Vantage Men.	0.06	8.6	0.63
Kool Ultra 100's	0.06	*	*
Newport Lights	0.05	9.0	0.79
B & H LIGHTS 100 MEN (BOX)	0.05	10.6	0.79
Satin Men.	0.02	10.8	0.84
Ritz (Box)	0.02	11.5	0.83
Kent Golden Lights Men.	0.02	9.6	0.83
Savvy Lights Men.	0.01	10.2	0.90
100 MM FILTER SLIM			
VIRGINIA SLIMS	0.52	13.8	1.02
VA SLIMS LIGHTS (BOX)	0.46	8.6	0.69
VA SLIMS UL (BOX)	0.30	6.0	0.49
Capri (Box)	0.18	9.1	0.75
VA SLIMS SUPERSLIMS (BOX)	0.11	6.8	0.55
Newport Stripes (Box)	0.10	11.3	0.86
More Lights (Box)	0.06	8.8	0.74
100 MM FILTER SLIM MENTHOL			
Salem Slim Lights (Box)	0.58	8.5	0.66
VA SLIMS LIGHTS MEN. (BOX)	0.52	7.8	0.63
VIRGINIA SLIMS MEN.	0.43	14.2	0.99
VA SLIMS UL MEN (BOX)	0.24	5.4	0.43
Capri Men (Box)	0.15	9.0	0.69
VA SLIMS SUPERSLIMS MEN (BOX)	0.12	5.7	0.51
Newport Stripes (Box)	0.08	11.5	0.85
More Lights Men. (Box)	0.06	8.2	0.64

*See page XVIII.
[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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CIGARETTE BRANDS RANKED ACCORDING TO SIZE AND SALES*
PHILIP MORRIS DATA

	SALES	FTC TAR, MG/CIGT.	NICOTINE, MG/CIGT.
100 MM FILTER CHARCOAL			
PARLIAMENT LIGHTS	0.37	12.0	0.96
Tareyton	0.30	13.5	0.98
Lark Lights	0.05	11.6	0.94
Tareyton Long Lights	0.04	8.1	0.71
85 MM FILTER CHARCOAL			
Tareyton	0.33	13.7	0.96
Lark Lights	0.07	11.3	0.86
B&H MULTIFILTER	0.03	11.0	0.85
Tareyton Lights	0.02	5.6	0.45
85 MM FILTER PLAIN			
MARLBORO	5.42	16.5	1.13
Winston	4.62	15.7	1.08
MARLBORO LIGHTS	4.30	10.7	0.82
MARLBORO LIGHTS (BOX)	3.68	10.9	0.82
Winston Lights	2.12	10.1	0.71
Camel	1.27	13.9	0.96
Camel Lights	1.25	11.2	0.79
Vantage	1.21	8.6	0.63
MERIT	0.88	7.8	0.61
Doral Lights	0.75	9.9	0.74
MERIT ULTRA LIGHTS	0.64	4.8	0.41
Doral Full Flavor	0.53	14.6	1.06
Viceroy	0.47	16.8	1.19
Vantage Ultra Lights	0.47	5.5	0.43
Kent	0.45	12.0	0.87
CAMBRIDGE LIGHTS	0.41	12.3	0.89
Carlton	0.40	1.6	0.15
CAMBRIDGE FULL FLAVOR	0.33	15.9	1.05
Winston Ultra Lights	0.30	6.0	0.47
True	0.28	5.1	0.44
MERIT (BOX)	0.27	7.8	0.61
MARLBORO 25'S	0.26	15.9	1.14
Lucky Strike	0.25	13.7	1.06
L & M	0.24	12.2	0.91
Now	0.22	1.3	0.13
Kent III	0.22	4.4	0.40
Kent Golden Lights	0.22	8.0	0.68
Pyramid Lights	0.21	11.0	0.84
PARLIAMENT LIGHTS	0.18	9.3	0.75
Raleigh	0.17	15.3	0.99
Magna	0.16	14.5	0.97
Doral Ultra Lights	0.16	5.6	0.48
MERIT ULTRA LIGHTS (BOX)	0.14	5.1	0.44
MARLBORO LIGHTS 25'S	0.13	10.5	0.80
BRISTOL LIGHTS	0.12	10.9	0.82
Magna Lites	0.11	10.9	0.77
Old Gold	0.10	16.4	1.24
Viceroy Lights	0.10	11.2	0.87
Barclay	0.09	*	*
American Lights	0.07	11.3	0.89
American Filters	0.07	16.0	1.20
Malibu Lights	0.05	8.4	0.72
Malibu	0.04	15.3	1.14
Raleigh Lights	0.04	11.2	0.86

	SALES	FTC TAR, MG/CIGT.	NICOTINE, MG/CIGT.
85 MM FILTER MENTHOL			
Salem	1.84	17.0	1.18
Salem Lights	1.83	9.6	0.69
Kool	1.73	16.7	1.13
Newport	1.50	17.2	1.21
Kool Milds	0.47	11.8	0.92
Salem Ultra Lights	0.39	5.2	0.43
Doral Lights Men.	0.31	9.7	0.73
MARLBORO MEN.	0.23	15.1	1.04
Vantage Men.	0.20	9.5	0.67
Newport Lights	0.19	8.1	0.66
MERIT ULTRA LIGHTS MEN.	0.17	5.5	0.47
ALPINE LIGHTS	0.16	9.8	0.74
ALPINE	0.14	15.2	1.05
Belair	0.14	10.6	0.80
CAMBRIDGE LIGHTS MEN.	0.14	12.4	0.92
MERIT MEN.	0.13	7.8	0.64
MARLBORO LIGHTS MEN. (BOX)	0.13	9.5	0.77
True Men.	0.12	4.8	0.45
Carlton Men.	0.12	1.4	0.14
Doral Full Flavor Men.	0.11	15.1	1.08
Kool Lights	0.09	8.3	0.68
Now Men.	0.07	1.5	0.14
BRISTOL LIGHTS	0.06	11.4	0.87
Kool Ultra	0.05	*	*
Malibu Menthol	0.03	15.6	1.24
Kent Golden Lights Men.	0.01	7.7	0.62
80 MM FILTER (BOX)			
MARLBORO (BOX)	6.84	16.4	1.15
Winston (Box)	0.54	15.5	0.99
Camel Lights (Box)	0.50	9.7	0.61
PARLIAMENT LIGHTS (BOX)	0.36	9.1	0.70
Winston Lights (Box)	0.20	9.3	0.60
Magna (Box)	0.12	13.5	0.82
Kool Milds (Box)	0.09	11.5	0.88
Magna Lites (Box)	0.07	8.8	0.66
Kent (Box)	0.02	11.4	0.83
Doral Full Flavor (Box)	0.00	13.5	0.76
85 MM NONFILTER			
Pall Mall	1.88	23.2	1.62
Chesterfield King	0.22	20.6	1.30
Pyramid	0.14	20.5	1.32
COMMANDER KING SIZE	0.05	23.7	1.55
70 MM NONFILTER			
Camel	1.53	20.2	1.38
Lucky Strike	0.45	23.3	1.55
COMMANDER REGULAR	0.01	20.7	1.37

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...L TRADE COMMISSION DATA PUBLISHED DECEMBER, 1988
...PHABETICAL LISTING OF BRANDS WITH TAR AND NICOTINE CONTENT

...of Two Hundred Seven Two (272) Varieties of Domestic Cigarettes

BRAND	TYPE*	TAR, MG/CIGT.	NICOTINE, MG/CIGT.
Belair	F,M,SP, 85 mm	17	1.1
Belair	F,M,SP, 85 mm	10	0.8
Belair	F,M,SP, 100 mm	9	0.7
BENSON & HEDGES	F,HP, 85 mm	15	1.2
BENSON & HEDGES 100's	F,HP, 100 mm	17	1.2
BENSON & HEDGES 100's	F,M,HP, 100 mm	16	1.1
BENSON & HEDGES 100's	F,SP, 100 mm	17	1.2
BENSON & HEDGES 100's	F,M,SP, 100 mm	16	1.2
BENSON & HEDGES LIGHTS	F,SP, 100 mm	10	0.8
BENSON & HEDGES LIGHTS	F,M,SP, 100 mm	11	0.8
B & H DELUXE ULTRA LTS.	F,HP, 100 mm	6	0.5
B & H DELUXE ULTRA LTS.	F,M,HP, 100 mm	5	0.5
B & H MULTIFILTER	F,SP, 85 mm	12	0.9
Bright	F,M,SP, 100 mm	7	0.5
CAMBRIDGE FULL FLAVOR	F,SP, 85 mm	17	1.1
CAMBRIDGE FULL FLAVOR	F,SP, 100 mm	17	1.2
CAMBRIDGE LIGHTS	F,SP, 85 mm	12	0.8
CAMBRIDGE LIGHTS	F,M,SP, 85 mm	12	0.8
CAMBRIDGE LIGHTS	F,SP, 100 mm	12	0.9
CAMBRIDGE LIGHTS	F,M,SP, 100 mm	12	0.9
Camel	Reg.,NF,SP, 70 mm	22	1.4
Camel	F,HP, 80 mm	16	1.0
Camel	F,SP, 85 mm	15	1.0
Camel	F,SP, 100 mm	17	1.1
Camel Lights	F,HP, 85 mm	10	0.6
Camel Lights	F,SP, 85 mm	9	0.6
Camel Lights	F,SP, 100 mm	11	0.8
Capri	F,HP, 100 mm	9	0.8
Capri	F,M,HP, 100 mm	9	0.7
Carlton	F,HP, 85 mm	**	**
Carlton	F,SP, 85 mm	1	0.1
Carlton	F,M,SP, 85 mm	1	0.1
Carlton	F,HP, 100 mm	1	0.1
Carlton	F,M,HP, 100 mm	1	0.1
Carlton	F,SP, 100 mm	3	0.3
Carlton	F,M,SP, 100 mm	4	0.4
Carlton	F,SP, 120 mm	6	0.6
Carlton	F,M,SP, 120 mm	6	0.6
Century 25's	F,SP, 85 mm	15	0.9
Century 25's	F,SP, 100 mm	17	1.1
Century Lights 25's	F,SP, 85 mm	10	0.7
Century Lights 25's	F,SP, 100 mm	12	0.8
Century Lights 25's	F,M,SP, 100 mm	12	0.8
Chesterfield	Reg.,NF,SP, 70 mm	20	1.3
Chesterfield	NF,SP, 85 mm	25	1.7
Craven "A"	F,HP, 85 mm	16	1.1
Craven "A"	K,F,HP, 85 mm	16	1.1
Dora... Flavor	F,HP, 85 mm	15	0.8
Doral Full Flavor	F,SP, 85 mm	18	0.9
Doral Full Flavor	F,SP, 100 mm	14	0.8
Doral Filter Lights	F,SP, 85 mm	12	0.7
Doral Filter Lights	F,M,SP, 85 mm	12	0.6
Doral Filter Lights	F,SP, 100 mm	12	0.7
Doral Filter Lights	F,M,SP, 100 mm	12	0.7
Doral Ultra Lights	F,SP, 100 mm	7	0.5
Dunhill International	F, HP, 100 mm	15	1.4
Dunhill	F,M,HP, 100 mm	15	1.2
Dunhill Inter. Superior	F,HP, 100 mm	9	0.8
Eli Cutter	F,SP, 85 mm	16	1.1
Eli Cutter Lights	F,SP, 85 mm	12	0.9
English Ovals	Reg.,NF,HP, 70 mm	24	1.8
Eve Slim Lights	F,HP, 100 mm	13	1.0
Eve Slim Lights	F,M,HP, 100 mm	13	1.0
Eve Lights	F,HP, 120 mm	12	1.1
Eve Lights	F,M,HP, 120 mm	13	1.1
Falcon Lights	F,SP, 85 mm	11	0.9
Falcon Lights	F,M,SP, 85 mm	10	0.8
Falcon Lights	F,SP, 100 mm	13	0.9
Falcon Lights	F,M,SP, 100 mm	9	0.7
Fiesta	F,SP, 85 mm	16	0.7
Herbert Tareyton	NF,SP, 85 mm	25	1.6
HI-LITE	F,HP, 100 mm	14	1.0
Kent Golden Lights	F,HP, 85 mm	10	0.8
Kent Golden Lights	F,SP, 85 mm	9	0.8
Kent Golden Lights	F,M,SP, 85 mm	8	0.7
Kent Golden Lights	F,HP, 100 mm	10	0.9
Kent Golden Lights	F,SP, 100 mm	10	0.9
Kent Golden Lights	F,M,SP, 100 mm	9	0.9
Kent	F,HP, 85 mm	11	0.9
Kent	F,SP, 85 mm	12	0.9
Kent	F,SP, 100 mm	13	1.0
Kent	F,M,SP, 100 mm	14	1.0
Kent III	F,SP, 95 mm	4	0.4
Kent III	F,HP, 100 mm	5	0.5
Kent III	F,SP, 100 mm	5	0.5
Kim 25's	F,HP, 100 mm	11	0.9
Kim 25's	F,M,HP, 100 mm	9	0.9
Kool	Reg., NF,M, SP	21	1.3
Kool	F,M,HP, 85 mm	16	1.1
Kool	F,M,SP, 85 mm	17	1.2
Kool Super Longs	F,M,SP, 100 mm	16	1.2
Kool Lights	F,M,SP, 85 mm	8	0.7
Kool Lights	F,M,SP, 100 mm	9	0.7
Kool Milds	F,M,HP, 85 mm	11	0.9
Kool Milds	F,M,SP, 85 mm	12	0.9
Kool Milds	F,M,SP, 100 mm	12	0.9
L & M	F,HP, 85 mm	14	1.1
L & M	F,SP, 85 mm	13	1.0
L & M Super	F,SP, 100 mm	14	1.1
L & M Long Lights	F,SP, 100 mm	8	0.8
L & M Lights 30's	F,SP, 100 mm	13	1.1
Lark	F,SP, 85 mm	13	1.0
Lark	F,SP, 100 mm	15	1.2
Lark Lights	F,SP, 85 mm	13	1.0
Lark Lights	F,SP, 100 mm	14	1.1
Lucky Strike	Reg., NF,SP	24	1.5
Lucky Strike	F,HP, 85 mm	12	0.9
Lucky Strike	F,SP, 85 mm	12	0.9
Lucky Strike Filters	F,SP, 100 mm	12	1.0
Lucky Strike	F,M,SP, 100 mm	12	0.9
Lucky Strike Lights	F,SP, 85 mm	8	0.6
Lucky Strike Lights	F,SP, 100 mm	9	0.8
Magna	F,HP, 85 mm	14	0.9
Magna	F,SP, 85 mm	14	0.9
Magna Lites	F,SP, 85 mm	9	0.6
Malibu	F,SP, 100 mm	12	1.0
Malibu	F,M,SP, 100 mm	11	0.9
Malibu Lights	F,SP, 100 mm	9	0.7
MARLBORO	F,HP, 85 mm	16	1.1
MARLBORO	F,SP, 85 mm	17	1.1
MARLBORO	F,M,SP, 85 mm	17	1.1
MARLBORO	F,HP, 100 mm	17	1.2
MARLBORO	F,SP, 100 mm	17	1.2
MARLBORO 25'S	F,SP, 85 mm	17	1.1
MARLBORO LIGHTS	F,HP, 85 mm	11	0.8
MARLBORO LIGHTS	F,SP, 85 mm	11	0.8
MARLBORO LIGHTS	F,M,SP, 85 mm	11	0.8
MARLBORO LIGHTS	F,HP, 100 mm	11	0.8
MARLBORO LIGHTS	F,SP, 100 mm	11	0.8
MARLBORO LIGHTS	F,M,SP, 100 mm	10	0.8
MARLBORO LIGHTS 25'S	F,SP, 85 mm	11	0.8
MARLBORO	F,Red HP, 100 mm	17	1.2
MARLBORO	F,Red SP, 100 mm	17	1.2
Max	F,SP, 120 mm	18	1.4
Max	F,M,SP, 120 mm	18	1.5
MERIT	F,HP, 85 mm	8	0.6
MERIT	F,SP, 85 mm	8	0.6
MERIT	F,M,SP, 85 mm	8	0.6
MERIT	F,SP, 100 mm	10	0.8

*F = Filter; NF = nonfilter; M = Menthol; HP = hard pack; SP = soft pack; mm = millimeter
**Indicates "tar" below 0.5 mg; nicotine below 0.05 mg per cigarette.

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FEDERAL TRADE COMMISSION DATA PUBLISHED [illegible]
ALPHABETICAL LISTING OF BRANDS WITH TAR AND NICOTINE [illegible]

BRAND	TYPE*	TAR, MG/CIGT.	NICOTINE, MG/CIGT.	BRAND	TYPE*	TAR, MG/CIGT.	NICOTINE, MG/CIGT.
MERIT	F,M,SP, 100 mm	10	0.8	Richland Lights 25's	F,SP, 85 mm	12	0.8
MERIT ULTRA LIGHTS	F,SP, 85 mm	5	0.5	Richland Lights 25's	F,SP, 100 mm	12	0.9
MERIT ULTRA LIGHTS	F,M,SP, 85 mm	5	0.4	Ritz	F,HP, 100 mm	12	0.8
MERIT ULTRA LIGHTS	F,SP, 100 mm	6	0.5	Ritz	F,M,HP, 100 mm	11	0.8
MERIT ULTRA LIGHTS	F,M,SP, 100 mm	5	0.5	Rothmans	F,HP, 85 mm	19	1.3
More	F,SP, 120 mm	17	1.2	Rothmans Spc Mild	F,HP, 85 mm	14	1.0
More	F,M,SP, 120 mm	17	1.3	St. Moritz	F,SP, 100 mm	15	1.1
More Lights	F,HP, 100 mm	9	0.7	St. Moritz	F,M,SP, 100 mm	15	1.0
More Lights	F,M,HP, 100 mm	9	0.7	Salem	F,M,SP, 85 mm	16	1.0
More Lights	F,SP, 120 mm	12	0.9	Salem	F,M,SP, 100 mm	17	1.1
More Lights	F,M,SP, 120 mm	12	0.9	Salem Lights	F,M,SP, 85 mm	10	0.7
Newport	F,M,HP, 85 mm	17	1.3	Salem Lights	F,M,HP 100 mm	11	0.8
Newport	F,M,SP, 85 mm	17	1.3	Salem Lights	F,M,SP, 100 mm	9	0.7
Newport	F,M,HP, 100 mm	19	1.5	Salem Slim Lights	F,M,HP, 100 mm	9	0.7
Newport	F,M,SP, 100 mm	19	1.5	Salem Ultra Lights	F,M,SP, 85 mm	5	0.4
Newport 25's	F,M,SP, 85 mm	17	1.3	Salem Ultra Lights	F,M,SP, 100 mm	5	0.4
Newport 25's	F,M,SP, 100 mm	20	1.6	SARATOGA	F,HP, 120 mm	14	1.0
Newport Lights	F,M,HP, 85 mm	9	0.8	SARATOGA	F,M,HP, 120 mm	15	1.1
Newport Lights	F,M,SP, 85 mm	9	0.8	Satin	F,SP, 100 mm	11	1.0
Newport Lights	F,M,HP, 100 mm	10	1.0	Satin	F,M,SP, 100 mm	11	1.0
Newport Lights	F,M,SP, 100 mm	9	0.9	Silva Thins	F,HP, 100 mm	10	0.9
Now	F,HP, 85 mm	**	**	Silva Thins	F,M,HP, 100 mm	11	1.0
Now	F,SP, 85 mm	1	0.1	Silva Thins	F,SP, 100 mm	12	0.9
Now	F,M,SP, 85 mm	1	0.1	Silva Thins	F,M,SP, 100 mm	12	1.0
Now	F,SP, 100 mm	2	0.2	Spring	F,M,SP, 100 mm	19	1.6
Now	F,M,SP, 100 mm	3	0.3	Tall	F,SP, 120 mm	20	1.6
Old Gold Straights	NF,SP, 85 mm	27	1.9	Tall	F,M,SP, 120 mm	18	1.5
Old Gold Filters	F,SP, 85 mm	17	1.3	Tareyton	F,SP, 85 mm	14	1.0
Old Gold Filters	F,SP, 100 mm	20	1.5	Tareyton	F,SP, 100 mm	14	1.0
Old Gold Lights	F,SP, 85 mm	10	0.9	Tareyton Lights	F,SP, 85 mm	5	0.4
Old Gold Lights	F,SP, 100 mm	13	1.0	Tareyton Long Lts.	F,SP, 100 mm	9	0.7
Pall Mall	NF,SP, 85 mm	24	1.5	Triumph	F,SP, 85 mm	4	0.4
Pall Mall	NF,SP, 85 mm	24	1.5	Triumph	F,M,SP, 85 mm	4	0.4
Pall Mall	F,SP, 100 mm	17	1.2	Triumph	F,SP, 100 mm	5	0.5
Pall Mall Unfiltered Lts.	NF,SP, 85 mm	16	1.1	Triumph	F,M,SP, 100 mm	6	0.6
Pall Mall Light	F,SP, 100 mm	10	0.8	True	F,SP, 85 mm	5	0.5
Pall Mall Light Low Tar	F,M,SP, 100 mm	13	1.1	True	F,M,SP, 85 mm	5	0.5
Pall Mall Red	F,SP, 85 mm	14	1.0	True	F,SP, 100 mm	7	0.7
Pall Mall Red	F,SP, 100 mm	14	1.0	True	F,M,SP, 100 mm	7	0.7
PARLIAMENT LIGHTS	F,HP, 85 mm	9	0.7	Vantage	F,SP, 85 mm	11	0.7
PARLIAMENT LIGHTS	F,SP, 85 mm	9	0.7	Vantage	F,M,SP, 85 mm	10	0.7
PARLIAMENT LIGHTS	F,SP, 100 mm	12	1.0	Vantage	F,SP, 100 mm	9	0.6
PHILIP MORRIS	NF,SP 70 mm	23	1.3	Vantage	F,M,SP, 100 mm	8	0.6
P.M. COMMANDER	NF,SP, 85 mm	27	1.6	Vantage Ultra Lts.	F,SP, 85 mm	5	0.4
P.M. BLUES	F,M,SP, 85 mm	17	1.2	Vantage Ultra Lts.	F,SP, 100 mm	6	0.5
P.M. BLUES	F,M,SP, 100 mm	15	1.2	Viceroy	F,SP, 85 mm	15	1.0
P.M. INTERNATIONAL	F,HP, 100 mm	18	1.2	Viceroy Super Long	F,SP, 100 mm	16	1.1
P.M. INTERNATIONAL	F,M,HP, 100 mm	17	1.1	Viceroy Lights	F,SP, 85 mm	11	0.9
PLAYERS	NF,HP, 70 mm	25	1.7	Viceroy Lights	F,SP, 100 mm	12	0.9
PLAYERS	F,HP, 85 mm	12	0.8	VIRGINIA SLIMS	F,SP, 100 mm	15	1.1
PLAYERS	F,M,HP, 85 mm	12	0.8	VIRGINIA SLIMS	F,M,SP, 100 mm	15	1.1
PLAYERS	F,HP, 100 mm	14	1.0	VIRGINIA SLIMS LTS.	F,HP, 100 mm	9	0.7
PLAYERS	F,M,HP, 100 mm	14	1.0	VIRGINIA SLIMS LTS.	F,M,HP, 100 mm	9	0.7
PLAYERS LIGHTS 25'S	F,SP, 85 mm	10	0.7	VIRGINIA SLIMS LTS.	F,HP, 120 mm	14	1.0
PLAYERS LIGHTS 25'S	F,M,SP, 85 mm	10	0.7	VIRGINIA SLIMS LTS.	F,M,HP, 120 mm	14	1.0
PLAYERS LIGHTS 25'S	F,SP, 100 mm	12	0.8	VA. SLIMS ULTRA LTS.	F,HP, 100 mm	6	0.5
PLAYERS LIGHTS 25'S	F,M,SP, 100 mm	11	0.8	VA. SLIMS ULTRA LTS.	F,M,HP, 100 mm	6	0.5
Raleigh	NF,SP, 85 mm	24	1.4	Winston	F,HP, 85 mm	16	1.0
Raleigh	F,SP, 85 mm	15	1.0	Winston	F,SP, 85 mm	17	1.1
Raleigh	F,SP, 100 mm	15	1.0	Winston	F,SP, 100 mm	17	1.1
Raleigh Lights	F,SP, 85 mm	12	0.9	Winston Lights	F,HP, 85 mm	10	0.6
Raleigh Lights	F,SP, 100 mm	11	0.9	Winston Lights	F,SP, 85 mm	11	0.8
Richland 25's	F,SP, 85 mm	17	1.2	Winston Lights	F,HP, 100 mm	10	0.7
Richland 25's	F,M,SP, 85 mm	16	1.1	Winston Lights	F,SP, 100 mm	11	0.8
Richland 25's	F,SP, 100 mm	18	1.3	Winston Ultra Lts.	F,SP, 85 mm	5	0.4
Richland 25's	F,M,SP, 100 mm	16	1.2	Winston Ultra Lts.	F,SP, 100 mm	5	0.4

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PHILIP MORRIS DATA

BRANDS RANKED ACCORDING TO FTC TAR

BRAND	SIZE	FTC TAR, MG/CIGT.	NICOTINE, MG/CIGT.
1. Now (Box)	LF	0.2	0.00
2. Carlton (Box)	KF	0.2	0.00
3. Now	KF	1.3	0.13
4. Carlton Men.	KFM	1.4	0.14
5. Now Men.	KFM	1.5	0.14
6. Carlton Men. (Box)	100M	1.6	0.14
7. Carlton	KF	1.6	0.15
8. Carlton (Box)	100	1.7	0.17
9. Now	100	2.5	0.22
10. Now Men.	100M	2.6	0.22
11. Carlton	100	2.7	0.23
12. Carlton Men.	100M	3.2	0.27
13. Triumph	KF	3.4	0.31
14. Triumph Men.	KFM	3.7	0.34
15. CAMBRIDGE ULTRA LIGHTS	100	4.4	0.38
16. Kent III	KF	4.4	0.40
17. MERIT ULTRA LIGHTS	KF	4.8	0.41
18. True Men.	KFM	4.8	0.45
19. True	KF	5.1	0.44
20. Winston Ultra Lights	100	5.1	0.44
21. MERIT ULTRA LIGHTS (BOX)	KF	5.1	0.44
22. MERIT ULTRA LIGHTS MEN.	100M	5.1	0.44
23. Kent III (Box)	100	5.1	0.45
24. Salem Ultra Lights	KFM	5.2	0.43
25. Salem Ultra Lights	100M	5.3	0.43
26. VIRGINIA SLIMS UL MEN.	100M	5.4	0.43
27. Vantage Ultra Lights	100	5.4	0.44
28. Vantage Ultra Lights	KF	5.5	0.43
29. Triumph	100	5.5	0.47
30. MERIT ULTRA LIGHTS MEN.	KFM	5.5	0.47
31. Doral Ultra Lights	100	5.5	0.49
32. Tareyton Lights	KFC	5.6	0.45
33. B&H DELUXE U.L. MEN.(BOX)	100M	5.6	0.45
34. Doral Ultra Lights	KF	5.6	0.48
35. Malibu Ultra Lights	100	5.6	0.49
36. Triumph Men.	100M	5.7	0.47
37. VA SLIMS SUPERSLIMS (BOX)	100M	5.7	0.51
38. B&H DELUXE U.L. (BOX)	100	5.8	0.47
39. Savvy Ultra Lights	100	5.8	0.57
40. Pyramid Ultra Lights	100	5.9	0.49
41. Kent III	100	5.9	0.52
42. Carlton Men.	120M	5.9	0.57
43. Winston Ultra Lights	KF	6.0	0.47
44. VIRGINIA SLIMS ULTRA LTS	100	6.0	0.49
45. MERIT ULTRA LIGHTS	100	6.0	0.53
46. Carlton	120	6.0	0.55
47. MERIT ULTRA LIGHTS (BOX)	100	6.5	0.56
48. VA SLIMS SUPERSLIMS (BOX)	100	6.8	0.55
49. Kent Golden Lights Men.	KFM	7.7	0.62
50. MERIT	KF	7.8	0.61
51. MERIT (BOX)	KF	7.8	0.61
52. VA SLIMS LIGHTS (BOX)	100M	7.8	0.63
53. MERIT MEN.	KFM	7.8	0.64
54. Old Gold Lights	KF	7.8	0.73
55. Newport Lights (Box)	LFM	7.9	0.70
56. Kent Golden Lights	KF	8.0	0.68
57. Kent Golden Lights (Box)	LF	8.0	0.69
58. True Men.	100M	8.0	0.73
59. Newport Lights	KFM	8.1	0.66
60. Tareyton Long Lights	100C	8.1	0.71
61. More Lights Men. (Box)	100M	8.2	0.64
62. Century Lights 25's	KF	8.2	0.70
63. Lucky Strike Lights	KF	8.3	0.67
64. Kool Lights	KFM	8.3	0.68
65. True	100	8.3	0.70
66. Malib Lights	KF	8.4	0.72
67. Kool Lights	100M	8.4	0.73
68. Salem Slim Lights (Box)	100M	8.[illegible]	0.66
69. Vantage	KF	8.[illegible]	0.63
70. Vantage Men.	100	8.[illegible]	0.[illegible]
71. VA SLIMS LIGHTS (BOX)	100	8.6	0.[illegible]
72. Newport Lights (Box)	100M	8.7	0.79
73. Magna Lites (Box)	LF	8.8	0.66
74. More Lights (Box)	100	8.8	0.[illegible]
75. Kent Golden Lights	100	8.8	0.8[illegible]
76. Belair	100M	8.9	0.65
77. Salem Lights	100M	8.9	0.72
78. Lucky Strike Lights	100	8.9	0.75
79. Capri Menthol	100M	9.0	0.69
80. Newport Lights	100M	9.0	0.79
81. Vantage	100	9.1	0.70
82. PARLIAMENT LIGHTS (BOX)	LF	9.1	0.70
83. Capri	100	9.1	0.75
84. Winston Lights (Box)	LF	9.3	0.60
85. PARLIAMENT LIGHTS	KF	9.3	0.75
86. Malibu Lights	100	9.3	0.78
87. Ritz (Box)	100	9.4	0.77
88. Vantage Men.	KFM	9.5	0.67
89. Doral Lights Men.	100M	9.5	0.68
90. MARLBORO LIGHTS MEN.(BOX)	KFM	9.5	0.77
91. Kent Golden Lights (Box)	10C	9.5	0.85
92. Salem Lights	KFM	9.6	0.69
93. Chesterfield Lights	KF	9.6	0.75
94. MERIT MEN.	100M	9.6	0.77
95. Kent Golden Lights Men.	100M	9.6	0.83
96. Camel Lights (Box)	LF	9.7	0.61
97. Doral Lights Men.	KFM	9.7	0.73
98. ALPINE LIGHTS	KFM	9.8	0.74
99. PLAYERS LIGHTS MEN. 25'S	KF	9.8	0.76
100. Doral Lights	KF	9.9	0.74
101. Pall Mall Lights	100	9.9	0.82
102. MERIT	100	10.[illegible]	0.75
103. ALPINE LIGHTS	100M	10.0	0.79
104. Winston Lights	KF	10.1	0.71
105. Camel Lights	100	10.1	0.73
106. PLAYERS LIGHTS 25'S	KF	10.1	0.76
107. Richland Lights 25's	KF	10.1	0.77
108. Winston Lights 10C (Box)	100	10.2	0.70
109. Savvy Lights	100	10.2	0.89
110. Savvy Lights Menthol	100M	10.2	0.90
111. B & H LIGHTS MEN.	100M	10.3	0.80
112. Winston Lights	100	10.4	0.74
113. MARLBORO LIGHTS	100	10.4	0.81
114. Chesterfield Lights	100	10.4	0.86
115. B & H LIGHTS	100	10.5	0.80
116. MARLBORO LIGHTS 25'S	KF	10.5	0.80
117. Doral Lights	100	10.5	0.89
118. B & H LIGHTS MEN. (BOX)	100M	10.6	0.79
119. Belair	KFM	10.6	0.80
120. MARLBORO LIGHTS	KF	10.7	0.82
121. B & H LIGHTS (BOX)	100	10.7	0.86
122. Satin Men.	100M	10.8	0.84
123. L & M	100	10.8	0.89
124. BRISTOL LIGHTS	100	10.8	0.90
125. Magna Lites	KF	10.9	0.77
126. BRITOL LIGHTS	KF	10.9	0.82
127. MARLBORO LIGHTS (BOX)	KF	10.9	0.82
128. MARLBORO LIGHTS (BOX)	100	10.9	0.82
129. Pyramid Lights	KF	11.0	0.84
130. PLAYERS MEN. (BOX)	KFM	11.0	0.84
131. B & H MULTIFILTER	KFC	11.0	0.85
132. Century Lights 25's	100	11.0	0.89
133. Satin	100	11.1	0.91
134. Camel Lights	KF	11.2	0.79

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PHILIP MORRIS DOCUMENT

BRANDS RANKED ACCORDING TO FTC TAR

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	BRAND	SIZE	FTC TAR, MG/CIGT.	NICOTINE, MG/CIGT.
135.	CAMBRIDGE LIGHTS MEN.	100M	11.2	0.85
136.	Raleigh Lights	KF	11.2	0.86
137.	Viceroy Lights	KF	11.2	0.87
138.	CAMBRIDGE LIGHTS	100	11.3	0.85
139.	Lark Lights	KFC	11.3	0.86
140.	Newport Stripes 100 (Box)	100	11.3	0.86
141.	American Lights	KF	11.3	0.89
142.	American Lights	100	11.3	0.89
143.	Kent (Box)	LF	11.4	0.83
144.	BRISTOL LIGHTS	KFM	11.4	0.87
145.	Eve Slim Lights Men.(Box)	100M	11.4	0.95
146.	Ritz Men.	100M	11.5	0.83
147.	Newport Stripes Men. 100	100m	11.5	0.85
148.	PLAYERS (BOX)	KF	11.5	0.86
149.	Kool Milds (Box)	LFM	11.5	0.88
150.	Pyramid Lights	100M	11.5	0.90
151.	Eve Slim Lights (Box)	100	11.5	0.91
152.	Malibu (Low Tar) Menthol	100M	11.5	0.92
153.	Lark Lights	100C	11.6	0.94
154.	PLAYERS LIGHTS MEN. 25'S	100M	11.7	0.88
155.	PLAYERS LIGHTS 25'S	100	11.8	0.87
156.	Pyramid Lights	100	11.8	0.91
157.	Kool Milds	KFM	11.8	0.92
158.	Kent	KF	12.0	0.87
159.	PARLIAMENT LIGHTS	100C	12.0	0.96
160.	Kool Milds	100M	12.1	0.95
161.	L & M	KF	12.2	0.91
162.	CAMBRIDGE LIGHTS	KF	12.3	0.89
163.	Eve Lights (Box)	120	12.3	1.08
164.	CAMBRIDGE LIGHTS MEN.	KFM	12.4	0.92
165.	Richland Lights 25's	100	12.5	0.90
166.	BRISTOL LIGHTS	100M	12.5	0.93
167.	Raleigh Lights	100	12.6	0.96
168.	Lark	KFC	12.6	1.03
169.	Lucky Strike	100	12.7	1.01
170.	Kent	100	12.8	0.98
171.	HI-LITE (BOX)	100	12.8	1.08
172.	Eve Lights Men. (Box)	120M	12.9	1.12
173.	Viceroy Lights	100	13.0	0.96
174.	Kent Men.	100M	13.2	0.98
175.	VA SLIMS LIGHTS MEN.(BOX)	120M	13.2	0.99
176.	PLAYERS (BOX)	100	13.4	1.00
177.	Doral Full Flavor (Box)	LF	13.5	0.76
178.	Magna (Box)	LF	13.5	0.82
179.	Tareyton	100C	13.5	0.98
180.	SARATOGA MEN. (BOX)	120M	13.5	1.03
181.	Tareyton	KFC	13.7	0.96
182.	Lucky Strike	KF	13.7	1.06
183.	PLAYERS MEN. (BOX)	100M	13.8	1.01
184.	VIRGINIA SLIMS	100	13.8	1.02
185.	VA SLIMS LIGHTS (BOX)	120	13.8	1.04
186.	Lark	100C	13.8	1.11
187.	Camel	KF	13.9	0.96
188.	Century 25's	KF	14.1	0.98
189.	VIRGINIA SLIMS MEN.	100M	14.2	0.99
190.	Magna	KF	14.5	0.97
191.	Doral Full Flavor	100	14.6	1.04
192.	Doral Full Flavor	KF	14.6	1.06
193.	SARATOGA (BOX)	120	14.7	1.11
194.	St. Moritz	100	14.7	1.13
195.	St. Moritz Men.	100M	14.8	1.02
196.	BENSON & HEDGES (BOX)	KF	14.8	1.25
197.	Richland Men. 25's	KFM	14.9	0.97
198.	ALPINE	100M	14.9	1.07
199.	Pall Mall	KF	14.9	1.12
200.	Pall Mall	100	14.9	1.12
201.	Malibu	[illegible]	15.0	1.14
202.	MARLBORO MEN.	KFM	15.1	1.04
203.	Doral Full Flavor	KFM	[illegible]	1.08
204.	Century 25's	[illegible]	[illegible]	1.11
205.	ALPINE	KFM	15.2	1.05
206.	Kool (Box)	LFM	15.2	1.05
207.	Doral Full Flavor	100M	[illegible]	1.08
208.	Raleigh	KF	[illegible]	0.99
209.	Camel (Box)	LF	15.3	0.99
210.	Raleigh	100	15.3	1.01
211.	Malibu	KF	15.3	1.14
212.	More Men.	120M	15.4	1.22
213.	Winston (Box)	LF	15.5	0.99
214.	Newport (Box)	LFM	15.5	1.12
215.	P.M. INTL (BOX)	100	15.5	1.13
216.	MARLBORO (BOX)	100	15.6	1.12
217.	BENSON & HEDGES MEN.(BOX)	100M	15.6	1.12
218.	Max	120	15.6	1.18
219.	Malibu Menthol	KFM	15.6	1.24
220.	Winston	KF	15.7	1.08
221.	BENSON & HEDGES MEN.	100M	15.7	1.11
222.	More	120	15.7	1.13
223.	Newport 25's	KFM	15.7	1.14
224.	BENSON & HEDGES	100	15.8	1.14
225.	P.M. INTL MEN. (BOX)	100M	15.8	1.17
226.	Max Men.	120M	15.8	1.20
227.	CAMBRIDGE FULL FLAVOR	KF	15.9	1.05
228.	MARLBORO 25'S	KF	15.9	1.14
229.	BENSON & HEDGES (BOX)	100	16.0	1.13
230.	MARLBORO	100	16.0	1.16
231.	American Filters	KF	16.0	1.20
232.	Winston	100	16.2	1.00
233.	American Filters	100	16.2	1.14
234.	CAMBRIDGE FULL FLAVOR	100	16.3	1.11
235.	Salem	100M	16.3	1.13
236.	MARLBORO (BOX)	LF	16.4	1.15
237.	Old Gold	KF	16.4	1.24
238.	MARLBORO	KF	16.5	1.13
239.	Kool	100M	16.6	1.22
240.	Kool	KFM	16.7	1.13
241.	Viceroy	KF	16.8	1.19
242.	Chesterfield	RNF	16.9	1.10
243.	Salem	KFM	17.0	1.18
244.	Newport	KFM	17.2	1.21
245.	Richland 25's	KF	17.3	1.25
246.	Newport 100 (Box)	100M	17.3	1.29
247.	Richland 25's	100	17.4	1.29
248.	Newport 25's	100M	17.7	1.29
249.	Old Gold	100	17.7	1.35
250.	Tall Men.	120M	17.8	1.52
251.	Spring	100M	18.0	1.32
252.	Tall	120	18.0	1.56
253.	Newport	100M	18.1	1.33
254.	Viceroy	100	18.2	1.33
255.	Kool	RNFM	19.7	1.29
256.	Camel	RNF	20.2	1.38
257.	Pyramid	KNF	20.5	1.32
258.	Chesterfield King	KNF	20.6	1.30
259.	COMMANDER REGULAR	RNF	20.7	1.37
260.	Raleigh	KNF	22.4	1.31
261.	Old Gold	KNF	22.7	1.56
262.	ENGLISH OVALS (BOX)	KNF	22.8	1.80
263.	H. Tareyton	KNF	23.0	1.52
264.	Pall Mall	KNF	23.2	1.62
265.	PLAYERS (BOX)	RNF	23.2	1.63
266.	Lucky Strike	RNF	23.3	1.55
267.	COMMANDER KING SIZE	KNF	23.7	1.55

PLAIN

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ULTRA LOW TAR 85 MM FILTER CIGARETTES
(6 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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	Now	Carlton	Kent III	Merit Ultra Ultra Low (Menthol)	Merit Ultra Low (Menthol)
[1]Sales	0.22	0.40	0.22	0.64	0.14
Smoke					
FTC Tar, mg/cigt.	1.3	1.6	4.4	4.8	5.1
Nicotine, mg/cigt.	0.13	0.15	0.40	0.41	0.44
Puffs/cigt.	6.4	6.4	6.8	7.4	7.8
Filtration Eff., %	74	76	63	64	63
Filler Rod TPM, mg/cigt.	23.0	22.5	28.4	27.7	27.3
CO, mg/cigt.	2.3	2.1	4.5	5.5	5.2
Cigarette					
Total RTD, mm of H_2O	113	117	111	111	107
Static Burn. Time, min.	5.3	5.5	6.2	6.9	7.2
Length, mm	84.1	83.0	84.2	83.9	82.9
Circumference,mm	25.0	25.0	24.9	24.9	25.0
Paper					
Component Type	Cit.	Cit.	Cit.	Cit.	Cit.
Component Percent	0.6	0.9	1.9	1.6	0.5
Permeability, ml/cm^2 x min.	37	48	30	46	35
Filter					
Type	CA	CA	-	CA	CA
Inner	-	-	CA	-	-
Outer	-	-	CA	-	-
RTD, mm of H_2O	172	153	119	131	128
Length, mm	26.9	25.1	25.0	27.0	26.9
Weight, g	0.19	0.18	0.15	0.18	0.18
Fiber denier/shape	2.1/Y	2.0/Y	-	3.0/Y	3.2/Y
Inner	-	-	1.8/Y	-	-
Outer	-	-	2.9/Y	-	-
Tipping Paper					
Length, mm	31.0	30.0	32.0	32.0	32.0
Color	White	White	White	Cork	Cork
Ventilation, %	77	71	56	52	54
Filler					
Total alkaloids, % (DWB)	2.42	2.36	2.49	2.20	2.17
Total red. sugars, % (DWB)	4.9	5.5	6.1	5.8	5.8
Reconstituted Tob., %	16	20	15	22	22
Expanded Stems, %	None	None	None	None	None
Expanded Tob., %	51	46	25	21	21
Wt. of Tob., g (12.5% OV)	0.467	0.517	0.587	0.607	0.604
Rod Length, mm	57.1	58.0	59.2	56.9	56.0
Rod Density, g/cc	0.165	0.180	0.201	0.217	0.217

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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ULTRA LOW TAR 85 MM FILTER CIGARETTES
(6 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

True	Vantage Ultra Lts.	Winston Ultra Lts.	Barclay*	
0.28	0.47	0.30	0.09	Sales
				Smoke
5.1	5.5	6.0	*	FTC Tar, mg/cigt.
0.44	0.43	0.47	*	Nicotine, mg/cigt.
7.9	6.9	6.6	*	Puffs/cigt.
60	62	61	60	Filtration Eff., %
27.5	27.7	27.0	33.3	Filler Rod TPM, mg/cigt.
5.4	7.8	8.1	*	CO, mg/cigt.
				Cigarette
59	116	119	46	Total RTD, mm of H_2O
6.8	6.4	6.4	7.7	Static Burn. Time, min.
84.1	83.9	84.0	84.0	Length, mm
24.9	25.0	25.0	24.9	Circumference,mm
				Paper
Cit.	Cit.	Cit.	Cit.	Component Type
0.7	1.6	1.6	0.6	Component Percent
39	26	23	23	Permeability, ml/cm² x min.
				Filter
-	CA	CA	CA	Type
CA	-	-	-	Inner
PL	-	-	-	Outer
112	130	129	95	RTD, mm of H_2O
25.1	26.7	27.0	27.0	Length, mm
0.18	0.20	0.19	0.20	Weight, g
-	2.6/Y	2.7/Y	2.4/Y	Fiber denier/shape
1.9/Y	-	-	-	Inner
-	-	-	-	Outer
				Tipping Paper
30.0	31.0	31.0	32.0	Length, mm
White	White	Cork	Cork	Color
62	51	44	83	Ventilation, %
				Filler
2.37	2.21	2.16	2.14	Total alkaloids, % (DWB)
5.3	6.8	6.6	6.8	Total red. sugars, % (DWB)
20	25	25	15	Reconstituted Tob., %
None	None	None	7	Expanded Stems, %
14	25	25	11	Expanded Tob., %
0.667	0.596	0.576	0.672	Wt. of Tob., g (12.5% OV)
59.0	57.2	57.1	57.1	Rod Length, mm
0.229	0.210	0.203	0.239	Rod Density, g/cc

*The FTC has determined that the present testing methodology does not accurately measure Brown & Williamson's Barclay and Kool Ultra cigarette smoke deliveries. Data are given on page XVIII.

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LOW TAR 85 MM FILTER CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

	Merit	Merit (Box)	Kent Golden Lights	[illegible]
[1]Sales	0.88	0.27	0.22	[illegible]
Smoke				
FTC Tar, mg/cigt.	7.8	7.8	8.0	8.6
Nicotine, mg/cigt.	0.61	0.61	0.68	0.63
Puffs/cigt.	7.7	7.5	7.2	7.5
Filtration Eff., %	61	60	53	60
Filler Rod TPM, mg/cigt.	29.7	27.9	28.4	28.5
CO, mg/cigt.	9.6	9.1	(10.2)	10.0
Cigarette				
Total RTD, mm of H_2O	124	128	(137)	128
Static Burn. Time, min.	7.3	7.3	6.7	7.0
Length, mm	84.1	83.1	83.9	83.9
Circumference,mm	24.9	25.0	25.0	25.1
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	1.7	1.7	2.2	1.0
Permeability, ml/cm^2 x min.	45	45	30	41
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	114	117	(113)	109
Length, mm	27.0	26.9	24.9	25.1
Weight, g	0.17	0.17	0.15	0.29
Fiber denier/shape	2.7/Y	2.5/Y	3.1/Y	1.6/R
Tipping Paper				
Length, mm	32.0	32.0	32.0	30.0
Color	Cork	Cork	White	Cork
Ventilation, %	32	29	(31)	27
Filler				
Total alkaloids, % (DWB)	2.03	2.10	2.34	1.91
Total red. sugars, % (DWB)	5.9	7.6	7.7	6.8
Reconstituted Tob., %	22	22	22	25
Expanded Stems, %	3	3	None	None
Expanded Tob., %	12	12	11	20
Wt. of Tob., g (12.5% OV)	0.671	0.662	0.673	0.652
Rod Length, mm	57.1	56.2	59.0	58.8
Rod Density, g/cc	0.239	0.238	0.230	0.221

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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LOW TAR 85 MM FILTER CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

Parliament Lights	Winston Lights	Marlboro Lights	
0.18	2.12	0.13	[1]Sales
			Smoke
9.3	10.1	10.5	FTC Tar, mg/cigt.
0.75	0.71	0.80	Nicotine, mg/cigt.
8.2	7.5	8.5	Puffs/cigt.
56	58	58	Filtration Eff., %
28.6	27.0	31.6	Filler Rod TPM, mg/cigt.
8.8	11.5	10.9	CO, mg/cigt.
			Cigarette
115	121	114	Total RTD, mm of H_2O
7.2	7.1	8.3	Static Burn. Time, min.
84.0	83.9	84.2	Length, mm
24.9	25.0	25.0	Circumference, mm
			Paper
Cit.	Cit.	Cit.	Component Type
1.9	0.6	0.6	Component Percent
49	39	36	Permeability, ml/cm^2 x min.
			Filter
CA	CA	CA	Type
119	99	100	RTD, mm of H_2O
25.0	26.8	27.0	Length, mm
0.13	0.17	0.17	Weight, g
2.5/Y	2.8/Y	3.0/Y	Fiber denier/shape
			Tipping Paper
30.0	31.0	31.0	Length, mm
White	Cork	White	Color
36	22	26	Ventilation, %
			Filler
2.12	1.90	2.11	Total alkaloids, % (DWB)
7.3	7.2	8.1	Total red. sugars, % (DWB)
22	25	22	Reconstituted Tob., %
3	None	3	Expanded Stems, %
12	16	12	Expanded Tob., %
0.697	0.631	0.681	Wt. of Tob., g (12.5% CV)
59.0	57.1	57.2	Rod Length, mm
0.240	0.222	0.240	Rod Density, g/cc

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LOW TAR 85 MM FILTER CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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	Marlboro Lights 25's	Marlboro Lights (Box)	
[1]Sales	4.30	3.68	1.
Smoke			
FTC Tar, mg/cigt.	10.7	10.9	11.2
Nicotine, mg/cigt.	0.82	0.82	0.79
Puffs/cigt.	8.4	8.4	7.5
Filtration Eff., %	55	56	59
Filler Rod TPM, mg/cigt.	31.4	31.9	28.8
CO, mg/cigt.	11.4	11.8	11.8
Cigarette			
Total RTD, mm of H_2O	122	121	115
Static Burn. Time, min.	7.8	8.0	7.6
Length, mm	83.9	83.1	84.2
Circumference, mm	24.9	25.0	25.0
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.5	0.5	0.5
Permeability, ml/cm² x min.	34	33	34
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	99	97	85
Length, mm	27.0	26.9	26.9
Weight, g	0.17	0.17	0.17
Fiber denier/shape	3.0/Y	3.0/Y	2.4/Y
Tipping Paper			
Length, mm	31.0	31.0	31.0
Color	White	White	Cork
Ventilation, %	24	23	15
Filler			
Total alkaloids, % (DWB)	2.05	2.07	1.90
Total red. sugars, % (DWB)	7.2	7.3	7.0
Reconstituted Tob., %	22	22	25
Expanded Stems, %	3	3	None
Expanded Tob., %	12	12	16
Wt. of Tob., g (12.5% OV)	0.683	0.670	0.636
Rod Length, mm	57.0	56.2	57.3
Rod Density, g/cc	0.243	0.241	0.223

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420203

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LOW TAR 85 MM FILTER CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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Raleigh Lights	Kent	L & M	
0.04	0.45	0.24	[1]Sales
			Smoke
11.2	12.0	12.2	FTC Tar, mg/cigt.
0.86	0.87	0.91	Nicotine, mg/cigt.
8.1	8.6	7.7	Puffs/cigt.
59	52	46	Filtration Eff., %
29.6	26.7	27.2	Filler Rod TPM, mg/cigt.
12.0	12.4	11.8	CO, mg/cigt.
			Cigarette
133	140	107	Total RTD, mm of H_2O
7.8	7.1	7.6	Static Burn. Time, min.
84.3	84.3	84.0	Length, mm
25.0	24.9	24.7	Circumference, mm
			Paper
Cit.	Cit.	Cit.	Component Type
0.9	0.8	0.5	Component Percent
32	36	159*	Permeability, ml/cm^2 x min.
			Filter
CA	CA	CA	Type
102	88	65	RTD, mm of H_2O
26.9	20.8	24.8	Length, mm
0.17	0.14	0.14	Weight, g
3.0/Y	3.0/Y	3.7/Y	Fiber denier/shape
			Tipping Paper
32.0	25.0	30.0	Length, mm
Cork	White	White	Color
20	18	None	Ventilation, %
			Filler
2.10	1.99	2.10	Total alkaloids, % (DWB)
7.2	6.3	7.7	Total red. sugars, % (DWB)
16	22	15	Reconstituted Tob., %
5	None	5	Expanded Stems, %
None	11	23	Expanded Tob., %
0.725	0.748	0.613	Wt. of Tob., g (12.5% OV)
57.5	63.5	59.3	Rod Length, mm
0.254	0.239	0.213	Rod Density, g/cc

*These cigarette papers are perforated.

2031420204

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LOW TAR 85 MM FILTER CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left t

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	Lucky Strike	Camel	Parliament
[1]Sales	0.25	1.27	0.1
Smoke			
FTC Tar, mg/cigt.	13.7	13.9	15.3
Nicotine, mg/cigt.	1.06	0.96	0.99
Puffs/cigt.	8.4	8.4	7.8
Filtration Eff., %	48	47	46
Filler Rod TPM, mg/cigt.	28.9	28.3	28.5
CO, mg/cigt.	12.9	13.0	13.4
Cigarette			
Total RTD, mm of H_2O	121	105	114
Static Burn. Time, min.	8.1	7.1	7.0
Length, mm	82.9	84.0	83.9
Circumference, mm	25.0	25.0	25.0
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.8	0.9	0.3
Permeability, ml/cm² x min.	20	38	42
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	73	67	63
Length, mm	25.0	21.1	20.9
Weight, g	0.16	0.13	0.12
Fiber denier/shape	2.8/Y	3.0/Y	2.8/Y
Tipping Paper			
Length, mm	30.0	25.0	26.0
Color	Cork	Cork	Cork
Ventilation, %	13	14	None
Filler			
Total alkaloids, % (DWB)	2.02	1.95	2.07
Total red. sugars, % (DWB)	8.4	6.9	7.1
Reconstituted Tob., %	20	25	11
Expanded Stems, %	None	None	14
Expanded Tob., %	12	16	12
Wt. of Tob., g (12.5% OV)	0.715	0.716	0.699
Rod Length, mm	57.9	62.9	63.0
Rod Density, g/cc	0.248	0.228	0.224

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420205

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FULL FLAVORED 85 MM FILTER CIGARETTES
(16 MG TAR OR MORE)
(Brands Ranked by FTC Tar, left to right)

	Winston	Marlboro 25's		Marlboro
[1]Sales	4.62	0.26		
Smoke				
FTC Tar, mg/cigt.	15.7	15.9	16.4	
Nicotine, mg/cigt.	1.08	1.14	1.24	
Puffs/cigt.	8.1	9.3	8.0	
Filtration Eff., %	49	47	47	
Filler Rod TPM, mg/cigt.	30.6	32.2	29.6	31.8
CO, mg/cigt.	15.3	14.0	16.1	14.2
Cigarette				
Total RTD, mm of H_2O	119	114	120	115
Static Burn. Time, min.	7.7	8.0	7.4	8.1
Length, mm	84.0	84.1	84.1	84.2
Circumference, mm	25.0	24.9	25.0	25.0
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	0.4	0.6	0.8	0.5
Permeability, ml/cm^2 x min.	24	36	19	34
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	74	71	63	71
Length, mm	21.0	20.9	20.9	21.0
Weight, g	0.14	0.12	0.12	0.12
Fiber denier/shape	3.6/Y	3.3/Y	3.0/Y	3.2/Y
Tipping Paper				
Length, mm	25.0	25.0	26.0	25.0
Color	Cork	Cork	Cork	Cork
Ventilation, %	8	10	None	11
Filler				
Total alkaloids, % (DWB)	2.11	2.12	2.38	2.07
Total red. sugars, % (DWB)	6.8	7.7	8.1	7.8
Reconstituted Tob., %	25	22	22	22
Expanded Stems, %	None	3	None	3
Expanded Tob., %	16	12	11	12
Wt. of Tob., g (12.5% OV)	0.710	0.750	0.723	0.751
Rod Length, mm	63.0	63.1	63.2	63.2
Rod Density, g/cc	0.227	0.241	0.230	0.240

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420206

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ULTRA LOW TAR 85 MM FILTER MENTHOL CIGARETTES
(6 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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	Carlton	Now	
[1]Sales	0.12	0.07	
Smoke			
FTC Tar, mg/cigt.	1.4	1.5	4.9
Nicotine, mg/cigt.	0.14	0.14	0.45
Puffs/cigt.	6.4	6.3	7.9
Filtration Eff., %	73	73	56
Filler Rod TPM, mg/cigt.	21.3	23.6	26.9
CO, mg/cigt.	2.0	2.0	5.4
Cigarette			
Total RTD, mm of H_2O	112	111	66
Static Burn. Time, min.	5.5	5.2	6.7
Length, mm	82.8	84.2	84.2
Circumference, mm	25.0	25.0	24.9
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.9	0.4	0.7
Permeability, ml/cm² x min.	49	37	36
Filter			
Type	CA	CA	-
Inner	-	-	CA
Outer	-	-	PL
RTD, mm of H_2O	149	164	115
Length, mm	24.9	27.0	24.9
Weight, g	0.18	0.20	0.18
Fiber denier/shape	1.8/Y	1.9/Y	-
Inner	-	-	1.8/Y
Outer	-	-	-
Tipping Paper			
Length, mm	30.0	31.0	30.0
Color	White	White	White
Ventilation, %	73	76	59
Filler			
Total alkaloids, % (DWB)	2.38	2.42	2.38
Total red. sugars, % (DWB)	5.1	5.1	5.5
Reconstituted Tob., %	20	16	20
Expanded Stems, %	None	None	None
Expanded Tob., %	46	51	14
Wt. of Tob., g (12.5% OV)	0.517	0.474	0.658
Rod Length, mm	58.0	57.3	59.3
Rod Density, g/cc	0.179	0.166	0.225
Menthol, mg/cigt.			
Smoke	0.19	0.19	0.22
Filler	5.4	3.8	2.3
Filter	2.3	4.7	1.2

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420207

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

ULTRA LOW TAR 85 MM FILTER MENTHOL CIGARETTES
(6 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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Salem Ultra Lights	Merit Ultra Lights	Kool Ultra*	
0.39	0.17	0.05	'Sales
			Smoke
5.2	5.5	*	FTC Tar, mg/cigt.
0.43	0.47	*	Nicotine, mg/cigt.
7.2	8.1	*	Puffs/cigt.
63	63	66	Filtration Eff.,
27.0	29.0	26.4	Filler Rod TPM, mg/cigt.
7.1	5.9	*	CO, mg/cigt.
			Cigarette
117	106	34	Total RTD, mm of H_2O
6.7	7.7	7.1	Static Burn. Time, min.
84.1	83.9	83.9	Length, mm
25.0	24.9	24.9	Circumference,mm
			Paper
Cit.	Cit.	Cit.	Component Type
1.7	0.5	0.9	Component Percent
23	34	46	Permeability, ml/cm^2 x min.
			Filter
CA	CA	CA	Type
-	-	-	Inner
-	-	-	Outer
132	125	86	RTD, mm of H_2O
27.0	27.0	27.0	Length, mm
0.19	0.18	0.19	Weight, g
2.6/Y	2.8/Y	4.0/Y	Fiber denier/shape
-	-	-	Inner
-	-	-	Outer
			Tipping Paper
31.0	32.0	32.0	Length, mm
White	Cork	Cork	Color
52	55	75	Ventilation, %
			Filler
2.16	2.17	2.27	Total alkaloids, % (DWB)
5.2	5.6	6.6	Total red. sugars, % (DWB)
25	22	13	Reconstituted Tob., %
None	None	10	Expanded Stems, %
28	21	11	Expanded Tob., %
0.596	0.607	0.649	Wt. of Tob., g (12.5% OV)
57.1	57.0	56.9	Rod Length, mm
0.210	0.216	0.232	Rod Density, g/cc
			Menthol, mg/cigt.
0.31	0.44	0.10	Smoke
2.8	3.4	2.1	Filler
1.4	2.4	1.3	Filter

*The FTC has determined that the present testing methodology does not accurately measure Brown & Williamson's Barclay and Kool Ultra cigarette smoke deliveries. Data are given on page XVIII.

2031420208

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

LOW TAR 85 MM FILTER MENTHOL CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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	Kent Golden Lights	Merit	Newport Lights	
[1]Sales	0.01	0.13	0.19	
Smoke				
FTC Tar, mg/cigt.	7.7	7.8	8.1	8.1
Nicotine, mg/cigt.	0.62	0.64	0.66	0.68
Puffs/cigt.	7.1	8.4	7.1	7.7
Filtration Eff., %	55	61	53	55
Filler Rod TPM, mg/cigt.	28.3	30.4	29.8	27.2
CO, mg/cigt.	(9.4)	9.3	9.7	8.2
Cigarette				
Total RTD, mm of H_2O	(133)	121	134	115
Static Burn. Time, min.	6.8	7.9	7.2	7.3
Length, mm	84.2	83.9	84.2	83.8
Circumference, mm	24.9	24.9	24.9	24.9
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	2.0	0.5	1.9	0.3
Permeability, ml/cm² x min.	29	45	28	43
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	(114)	119	111	105
Length, mm	24.9	27.0	24.9	26.9
Weight, g	0.15	0.18	0.15	0.17
Fiber denier/shape	3.1/Y	2.6/Y	2.9/Y	2.5/Y
Tipping Paper				
Length, mm	32.0	32.0	32.0	32.0
Color	White	Cork	Cork	Cork
Ventilation, %	(29)	33	30	34
Filler				
Total alkaloids, % (DWB)	2.34	2.09	2.36	2.23
Total red. sugars, % (DWB)	7.9	7.1	8.3	6.4
Reconstituted Tob., %	22	22	22	13
Expanded Stems, %	None	3	None	10
Expanded Tob., %	11	12	11	11
Wt. of Tob., g (12.5% OV)	0.677	0.666	0.673	0.651
Rod Length, mm	59.3	57.0	59.3	56.9
Rod Density, g/cc	0.231	0.237	0.230	0.232
Menthol, mg/cigt.				
Smoke	0.34	0.48	0.31	0.35
Filler	2.0	2.9	1.9	2.3
Filter	1.3	1.7	1.1	1.2

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420209

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

LOW TAR 85 MM FILTER MENTHOL CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

Vantage	Marlboro Lights (Box)	Salem Lights	Belair	
0.20	0.13	1.83	0.14	Sample
				Smoke
9.5	9.5	9.6	10.6	FTC Tar, mg/cigt.
0.67	0.77	0.69	0.80	Nicotine, mg/cigt.
7.7	7.9	7.3	7.3	Puffs/cigt.
58	53	57	49	Filtration Eff., %
29.2	26.9	27.8	27.7	Filler Rod TPM, mg/cigt.
10.9	9.5	11.7	9.4	CO, mg/cigt.
				Cigarette
132	107	126	107	Total RTD, mm of H_2O
7.3	7.3	7.1	6.8	Static Burn. Time, min.
84.0	83.0	83.9	83.6	Length, mm
25.1	25.0	25.0	25.0	Circumference, mm
				Paper
Cit.	Cit.	Cit.	Cit.	Component Type
1.5	0.5	0.9	0.2	Component Percent
25	47	38	43	Permeability, ml/cm² x min.
				Filter
CA	CA	CA	CA	Type
111	87	108	77	RTD, mm of H_2O
25.1	27.1	26.9	26.8	Length, mm
0.29	0.17	0.18	0.16	Weight, g
1.7/R	3.9/Y	3.4/Y	4.0/Y	Fiber denier/shape
				Tipping Paper
30.0	31.0	31.0	32.0	Length, mm
Cork	White	White	White	Color
28	27	20	24	Ventilation, %
				Filler
1.89	2.19	2.07	2.27	Total alkaloids, % (DWB)
6.8	8.3	7.1	6.3	Total red. sugars, % (DWB)
25	22	25	11	Reconstituted Tob., %
None	None	None	14	Expanded Stems, %
16	15	16	12	Expanded Tob., %
0.678	0.647	0.636	0.630	Wt. of Tob., g (12.5% OV)
58.9	55.9	57.0	56.7	Rod Length, mm
0.230	0.233	0.224	0.223	Rod Density, g/cc
				Menthol, mg/cigt.
0.37	0.56	0.44	0.30	Smoke
2.5	2.6	2.4	1.5	Filler
1.7	1.6	1.4	0.9	Filter

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LOW TAR 85 MM FILTER MENTHOL CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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	Kool Milds (Box)	Kool Milds	
[1]Sales	0.09	0.47	
Smoke			
FTC Tar, mg/cigt.	11.5	11.8	13.1
Nicotine, mg/cigt.	0.88	0.92	1.0
Puffs/cigt.	7.6	7.7	8.1
Filtration Eff., %	48	51	43
Filler Rod TPM, mg/cigt.	28.0	30.5	27.0
CO, mg/cigt.	10.6	12.2	14.1
Cigarette			
Total RTD, mm of H_2O	117	120	121
Static Burn. Time, min.	7.2	7.9	7.6
Length, mm	79.9	84.1	84.0
Circumference,mm	24.9	24.9	24.9
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.5	0.6	1.6
Permeability, ml/cm² x min.	23	25	46
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	76	77	63
Length, mm	18.9	26.9	21.0
Weight, g	0.12	0.16	0.12
Fiber denier/shape	3.0/Y	3.3/Y	4.1/Y
Tipping Paper			
Length, mm	26.0	32.0	25.0
Color	Cork	Cork	Cork
Ventilation, %	22	18	None
Filler			
Total alkaloids, % (DWB)	2.28	2.32	2.17
Total red. sugars, % (DWB)	6.1	6.3	8.6
Reconstituted Tob., %	13	13	22
Expanded Stems, %	10	10	None
Expanded Tob., %	11	11	15
Wt. of Tob., g (12.5% OV)	0.701	0.673	0.723
Rod Length, mm	61.0	57.2	63.0
Rod Density, g/cc	0.234	0.239	0.233
Menthol, mg/cigt.			
Smoke	0.45	0.49	0.62
Filler	2.3	2.3	2.3
Filter	1.3	1.2	1.1

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420211

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

FULL FLAVORED 85 MM FILTER MENTHOL CIGARETTES
(16 MG TAR OR MORE)
(Brands Ranked by FTC Tar, left to right)

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	Kool	Salem	
[1]Sales	1.73	1.84	
Smoke			
FTC Tar, mg/cigt.	16.7	17.0	17.[illegible]
Nicotine, mg/cigt.	1.13	1.18	1.21
Puffs/cigt.	7.6	8.1	8.1
Filtration Eff., %	43	46	45
Filler Rod TPM, mg/cigt.	28.5	28.5	29.5
CO, mg/cigt.	15.1	15.9	17.4
Cigarette			
Total RTD, mm of H_2O	116	117	121
Static Burn. Time, min.	7.1	7.3	7.3
Length, mm	83.8	84.1	84.1
Circumference,mm	25.0	25.1	25.0
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.8	0.6	0.8
Permeability, ml/cm^2 x min.	28	24	18
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	57	68	63
Length, mm	20.9	21.0	21.0
Weight, g	0.12	0.13	0.12
Fiber denier/shape	4.1/Y	2.7/Y	3.4/Y
Tipping Paper			
Length, mm	26.0	25.0	25.0
Color	Cork	White	Cork
Ventilation, %	None	None	None
Filler			
Total alkaloids, % (DWB)	2.46	2.30	2.33
Total red. sugars, % (DWB)	6.3	6.9	8.4
Reconstituted Tob., %	13	25	22
Expanded Stems, %	10	None	None
Expanded Tob., %	11	16	11
Wt. of Tob., g (12.5% OV)	0.706	0.710	0.715
Rod Length, mm	62.9	63.1	63.2
Rod Density, g/cc	0.225	0.225	0.228
Menthol, mg/cigt.			
Smoke	0.57	0.60	0.52
Filler	2.2	2.2	1.8
Filter	1.0	0.8	0.8

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420212

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

ULTRA LOW TAR 100 MM FILTER CIGARETTES
(6 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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	Carlton (Box)	Now	Carlton	Virginia Slims Ultra
[1]Sales	0.04	0.60	0.57	
Smoke				
FTC Tar, mg/cigt.	1.7	2.5	2.7	5.1
Nicotine, mg/cigt.	0.17	0.22	0.23	0.44
Puffs/cigt.	7.6	7.4	7.9	8.6
Filtration Eff., %	71	70	63	67
Filler Rod TPM, mg/cigt.	22.7	23.4	23.9	25.3
CO, mg/cigt.	1.5	2.5	4.0	8.1
Cigarette				
Total RTD, mm of H_2O	93	100	99	127
Static Burn. Time, min.	5.6	5.3	5.7	6.4
Length, mm	98.7	98.9	99.8	99.0
Circumference,mm	24.5	25.0	24.5	25.0
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	1.0	1.7	1.3	0.9
Permeability, ml/cm² x min.	47	24	25	37
Filter				
Type	CA	CA	CA	CA
Inner	-	-	-	-
Outer	-	-	-	-
RTD, mm of H_2O	125	142	129	152
Length, mm	26.8	29.6	26.8	30.8
Weight, g	0.18	0.20	0.18	0.22
Fiber denier/shape	3.2/I	2.5/Y	3.4/Y	2.5/Y
Inner	-	-	-	-
Outer	-	-	-	-
Tipping Paper				
Length, mm	35.0	35.0	35.0	35.0
Color	White	White	White	Cork
Ventilation, %	76	73	75	50
Filler				
Total alkaloids, % (DWB)	2.29	2.39	2.38	2.12
Total red. sugars, % (DWB)	6.2	5.4	6.0	7.7
Reconstituted Tob., %	20	16	20	25
Expanded Stems, %	None	None	None	None
Expanded Tob., %	46	51	46	25
Wt. of Tob., g (12.5% OV)	0.632	0.578	0.627	0.704
Rod Length, mm	71.9	69.3	73.0	68.2
Rod Density, g/cc	0.184	0.168	0.180	0.208

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420213

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

ULTRA LOW TAR 100 MM FILTER CIGARETTES
(6 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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Vantage Ultra Lights	B & H DeLuxe Ultra Lights (Box)	Kent III	
0.54	0.66	0.26	[1]Sales
			Smoke
5.4	5.8	5.9	FTC Tar, mg/cigt.
0.44	0.47	0.52	Nicotine, mg/cigt.
8.6	9.2	8.3	Puffs/cigt.
69	61	67	Filtration Eff., %
26.3	25.8	27.9	Filler Rod TPM, mg/cigt.
8.1	6.6	6.8	CO, mg/cigt.
			Cigarette
124	104	122	Total RTD, mm of H_2O
6.3	6.7	6.1	Static Burn. Time, min.
98.8	98.4	99.1	Length, mm
25.0	24.0	24.9	Circumference, mm
			Paper
Cit.	Cit.	Cit.	Component Type
1.7	1.8	2.1	Component Percent
25	48	30	Permeability, ml/cm^2 x min.
			Filter
CA	CA	-	Type
-	-	CA	Inner
-	-	CA	Outer
152	123	125	RTD, mm of H_2O
30.8	31.5	26.9	Length, mm
0.23	0.18	0.16	Weight, g
2.3/Y	2.8/Y	-	Fiber denier/shape
-	-	1.8/Y	Inner
-	-	3.0/Y	Outer
			Tipping Paper
35.0	36.0	34.0	Length, mm
White	White	White	Color
54	55	48	Ventilation, %
			Filler
2.23	2.03	2.50	Total alkaloids, % (DWB)
7.0	7.4	6.3	Total red. sugars, % (DWB)
25	22	15	Reconstituted Tob., %
None	3	None	Expanded Stems, %
25	19	25	Expanded Tob., %
0.707	0.709	0.712	Wt. of Tob., g (12.5% OV)
68.0	67.0	72.2	Rod Length, mm
0.210	0.230	0.199	Rod Density, g/cc

2031420214

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

ULTRA LOW TAR 100 MM FILTER CIGARETTES
(6 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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	Merit Ultra Lights	Merit Ultra Lights (Box)	
[1]Sales	1.96	0.09	
Smoke			
FTC Tar, mg/cigt.	6.0	6.5	
Nicotine, mg/cigt.	0.53	0.56	
Puffs/cigt.	9.7	9.2	*
Filtration Eff., %	66	64	58
Filler Rod TPM, mg/cigt.	29.5	27.1	33.8
CO, mg/cigt.	7.3	6.0	*
Cigarette			
Total RTD, mm of H_2O	112	110	64
Static Burn. Time, min.	7.4	7.3	7.8
Length, mm	99.2	98.3	99.1
Circumference,mm	24.9	24.1	24.8
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.5	0.6	0.6
Permeability, ml/cm^2 x min.	26	41	22
Filter			
Type	CA	CA	CA
Inner	-	-	-
Outer	-	-	-
RTD, mm of H_2O	134	120	94
Length, mm	31.5	31.4	27.0
Weight, g	0.20	0.19	0.20
Fiber denier/shape	3.0/Y	3.2/Y	3.8/Y
Inner	-	-	-
Outer	-	-	-
Tipping Paper			
Length, mm	36.0	36.0	36.0
Color	Cork	Cork	Cork
Ventilation, %	51	53	77
Filler			
Total alkaloids, % (DWB)	2.17	2.23	2.11
Total red. sugars, % (DWB)	6.0	5.9	7.7
Reconstituted Tob., %	22	22	15
Expanded Stems, %	None	None	7
Expanded Tob., %	21	21	11
Wt. of Tob., g (12.5% OV)	0.722	0.675	0.849
Rod Length, mm	67.7	66.9	72.1
Rod Density, g/cc	0.217	0.218	0.240

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.
*The FTC has determined that the present testing methodology does not accurately measure Brown & Williamson's Barclay and Kool Ultra cigarette smoke deliveries. Data are given on page XVIII.

2031420215

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

LOW TAR 100 MM FILTER CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, 1[illegible] Quarter)

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	True	Kent Golden Lights	Vantage	Merit
[1]Sales	0.21	0.20	0.60	[illegible]
Smoke				
FTC Tar, mg/cigt.	8.3	8.8	9.1	10.0
Nicotine, mg/cigt.	0.70	0.81	0.70	0.7[illegible]
Puffs/cigt.	9.6	9.5	9.2	9.8
Filtration Eff., %	50	52	58	60
Filler Rod TPM, mg/cigt.	28.9	29.0	27.0	27.9
CO, mg/cigt.	6.6	7.1	10.9	10.8
Cigarette				
Total RTD, mm of H_2O	53	92	136	122
Static Burn. Time, min.	6.6	6.8	6.8	7.8
Length, mm	99.0	98.9	99.5	99.5
Circumference, mm	24.9	25.0	25.0	24.9
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	2.4	2.1	1.0	0.5
Permeability, ml/cm^2 x min.	29	27	38	46
Filter				
Type	-	CA	CA	CA
Inner	CA	-	-	-
Outer	PL	-	-	-
RTD, mm of H_2O	67	84	120	105
Length, mm	26.8	27.0	27.5	31.6
Weight, g	0.16	0.15	0.30	0.19
Fiber denier/shape	-	3.1/Y	2.6/Y	2.6/Y
Inner	1.8/Y	-	-	-
Outer	-	-	-	-
Tipping Paper				
Length, mm	34.0	34.0	34.0	36.0
Color	White	White	Cork	Cork
Ventilation, %	57	50	34	31
Filler				
Total alkaloids, % (DWB)	2.36	2.36	1.90	2.08
Total red. sugars, % (DWB)	6.0	7.7	7.3	7.0
Reconstituted Tob., %	20	22	25	22
Expanded Stems, %	None	None	None	3
Expanded Tob., %	14	11	20	12
Wt. of Tob., g (12.5% CV)	0.816	0.821	0.773	0.801
Rod Length, mm	72.2	72.0	71.9	67.9
Rod Density, g/cc	0.229	0.230	0.217	0.239

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420216

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LOW TAR 100 MM FILTER CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

	Camel Lights	Winston Lights (Box)	Winston Lights	Marlboro Lights
[1]Sales	0.32	0.10	1.44	1.96
Smoke				
FTC Tar, mg/cigt.	10.1	10.2	10.4	10.4
Nicotine, mg/cigt.	0.73	0.70	0.74	0.81
Puffs/cigt.	9.0	9.1	9.2	10.2
Filtration Eff., %	56	60	57	59
Filler Rod TPM, mg/cigt.	27.1	27.9	27.0	30.5
CO, mg/cigt.	12.0	11.9	11.9	11.8
Cigarette				
Total RTD, mm of H_2O	122	154	122	122
Static Burn. Time, min.	7.0	7.3	7.2	7.7
Length, mm	98.8	98.2	98.9	99.3
Circumference, mm	25.0	24.2	25.0	25.0
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	0.6	0.6	0.5	0.6
Permeability, $ml/cm^2 \times min.$	36	39	39	43
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	99	123	99	106
Length, mm	30.7	31.0	30.7	31.4
Weight, g	0.18	0.19	0.18	0.19
Fiber denier/shape	2.6/Y	3.1/Y	2.6/Y	2.8/Y
Tipping Paper				
Length, mm	35.0	35.0	35.0	36.0
Color	Cork	Cork	Cork	White
Ventilation, %	26	20	26	31
Filler				
Total alkaloids, % (DWB)	1.82	1.91	1.88	2.03
Total red. sugars, % (DWB)	7.1	7.5	7.0	7.1
Reconstituted Tob., %	25	25	25	22
Expanded Stems, %	None	None	None	3
Expanded Tob., %	16	16	16	12
Wt. of Tob., g (12.5% OV)	0.772	0.739	0.774	0.811
Rod Length, mm	68.1	67.2	68.2	67.9
Rod Density, g/cc	0.228	0.236	0.229	0.241

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420217

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LOW TAR 100 MM FILTER CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left [illegible])

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B & H Lights	B & H Lights (Box)	L & M	Marlboro Lights (Box)	
0.49	0.05	0.06	1.15	[1]Sales
				Smoke
10.5	10.7	(10.8)	10.9	FTC Tar, mg/cigt.
0.80	0.86	0.89	0.82	Nicotine, mg/cigt.
10.2	9.2	(9.4)	10.0	Puffs/cigt.
57	51	48	59	Filtration Efficiency
30.5	26.9	24.2	30.1	Filler Rod TPM, mg/cigt.
10.8	11.1	(10.3)	12.3	CO, mg/cigt.
				Cigarette
117	123	(99)	123	Total RTD, mm of H_2O
7.9	7.4	(7.7)	7.9	Static Burn. Time, min.
99.4	98.4	98.5	98.4	Length, mm
24.9	24.1	24.8	25.0	Circumference, mm
				Paper
Cit.	Cit.	Cit.	Cit.	Component Type
0.6	0.4	0.6	0.6	Component Percent
37	45	(68)	33	Permeability, ml/cm^2 x min.
				Filter
CA	CA	CA	CA	Type
108	106	80	106	RTD, mm of H_2O
31.2	31.6	29.7	31.4	Length, mm
0.19	0.19	0.17	0.19	Weight, g
2.6/Y	2.6/Y	3.6/Y	3.0/Y	Fiber denier/shape
				Tipping Paper
36.0	36.0	35.0	36.0	Length, mm
White	White	White	White	Color
32	27	(36)	29	Ventilation, %
				Filler
2.05	2.05	2.07	2.05	Total alkaloids, % (DWB)
7.6	6.8	7.9	7.9	Total red. sugars, % (DWB)
22	22	15	22	Reconstituted Tob., %
3	3	5	3	Expanded Stems, %
12	12	23	12	Expanded Tob., %
0.807	0.746	0.720	0.795	Wt. of Tob., g (12.5% OV)
68.2	66.8	68.8	67.1	Rod Length, mm
0.239	0.242	0.215	0.239	Rod Density, g/cc

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LOW TAR 100 MM FILTER CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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	Satin	Raleigh Lights	
[1] Sales	0.03	0.04	0.3
Smoke			
FTC Tar, mg/cigt.	11.1	12.6	12.8
Nicotine, mg/cigt.	0.91	0.96	0.98
Puffs/cigt.	8.9	9.5	9.3
Filtration Eff., %	53	59	51
Filler Rod TPM, mg/cigt.	28.3	30.1	28.0
CO, mg/cigt.	10.8	13.4	12.3
Cigarette			
Total RTD, mm of H_2O	122	138	122
Static Burn. Time, min.	6.9	7.3	7.1
Length, mm	98.5	99.0	98.6
Circumference, mm	24.8	24.9	24.9
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	2.0	0.9	0.8
Permeability, ml/cm² x min.	29	46	36
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	85	103	73
Length, mm	26.8	29.7	26.8
Weight, g	0.15	0.18	0.16
Fiber denier/shape	2.6/Y	3.5/Y	4.6/Y
Tipping Paper			
Length, mm	34.0	36.0	34.0
Color	White	Cork	White
Ventilation, %	26	17	22
Filler			
Total alkaloids, % (DWB)	2.34	2.08	2.05
Total red. sugars, % (DWB)	7.5	7.3	6.7
Reconstituted Tob., %	22	16	22
Expanded Stems, %	None	5	None
Expanded Tob., %	11	None	11
Wt. of Tob., g (12.5% OV)	0.816	0.850	0.846
Rod Length, mm	71.7	69.3	71.8
Rod Density, g/cc	0.233	0.248	0.238

[1] First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420219

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LOW TAR 100 MM FILTER CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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Pall Mall	Raleigh	
0.42	0.13	[1]Sales
		Smoke
14.9	15.3	FTC Tar, mg/cigt.
1.12	1.01	Nicotine, mg/cigt.
10.3	8.5	Puffs/cigt.
47	47	Filtration Eff., %
26.1	25.0	Filler Rod TPM, mg/cigt.
14.1	14.5	CO, mg/cigt.
		Cigarette
135	121	Total RTD, mm of H_2O
7.6	6.6	Static Burn. Time, min.
99.7	98.8	Length, mm
24.5	24.9	Circumference, mm
		Paper
Cit.	Cit.	Component Type
0.9	0.3	Component Percent
46	44	Permeability, ml/cm^2 x min.
		Filter
CA	CA	Type
68	63	RTD, mm of H_2O
26.7	26.7	Length, mm
0.16	0.15	Weight, g
4.2/Y	3.8/Y	Fiber denier/shape
		Tipping Paper
32.0	32.0	Length, mm
White	Cork	Color
12	None	Ventilation, %
		Filler
2.09	2.09	Total alkaloids, % (DWB)
10.1	6.4	Total red. sugars, % (DWB)
20	11	Reconstituted Tob., %
3	14	Expanded Stems, %
17	12	Expanded Tob., %
0.834	0.802	Wt. of Tob., g (12.5% OV)
73.0	72.1	Rod Length, mm
0.240	0.226	Rod Density, g/cc

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FULL FLAVORED 100 MM FILTER CIGARETTES
(16 MG TAR OR MORE)
(Brands Ranked by FTC Tar, left to right)

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	B & H	Marlboro	
[1]Sales	0.80	1.64	
Smoke			
FTC Tar, mg/cigt.	15.8	16.0	
Nicotine, mg/cigt.	1.14	1.16	1.00
Puffs/cigt.	10.5	10.8	9.7
Filtration Eff., %	51	51	52
Filler Rod TPM, mg/cigt.	28.3	29.5	29.0
CO, mg/cigt.	15.0	14.6	16.3
Cigarette			
Total RTD, mm of H_2O	123	117	132
Static Burn. Time, min.	7.7	7.9	7.4
Length, mm	99.3	99.4	99.3
Circumference,mm	24.9	25.0	25.0
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.6	0.5	0.5
Permeability, ml/cm^2 x min.	45	40	23
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	78	76	80
Length, mm	27.5	27.4	27.5
Weight, g	0.16	0.16	0.17
Fiber denier/shape	3.6/Y	3.7/Y	3.8/Y
Tipping Paper			
Length, mm	32.0	31.5	32.0
Color	White	Cork	Cork
Ventilation, %	14	15	8
Filler			
Total alkaloids, % (DWB)	2.04	2.01	1.79
Total red. sugars, % (DWB)	7.9	7.9	8.6
Reconstituted Tob., %	22	22	25
Expanded Stems, %	3	3	None
Expanded Tob., %	12	12	16
Wt. of Tob., g (12.5% OV)	0.854	0.855	0.816
Rod Length, mm	71.9	72.1	71.8
Rod Density, g/cc	0.241	0.239	0.229

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420221

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120 MM FILTER CIGARETTES
(Brands Ranked by FTC Tar, left to right)

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	Carlton	Virginia Slims Lights (Box)	Saratoga (Box)	
[1]Sales	0.12	0.34	0.14	
Smoke				
FTC Tar, mg/cigt.	6.0	13.8	14.7	15.1
Nicotine, mg/cigt.	0.55	1.04	1.11	1.13
Puffs/cigt.	11.3	12.9	13.1	11.8
Filtration Eff., %	43	52	52	50
Filler Rod TPM, mg/cigt.	20.0	27.0	29.0	32.8
CO, mg/cigt.	5.2	12.4	13.1	20.3
Cigarette				
Total RTD, mm of H_2O	95	130	130	172
Static Burn. Time, min.	6.4	7.7	7.8	7.9
Length, mm	119.4	119.6	119.7	119.9
Circumference,mm	22.3	23.1	23.1	21.1
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	0.9	0.5	0.5	0.8
Color	White	White	White	Brown
Permeability, ml/cm^2 x min.	45	41	27	15
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	81	99	99	124
Length, mm	29.6	31.5	31.6	34.9
Weight, g	0.14	0.16	0.16	0.16
Fiber denier/shape	4.8/Y	3.4/Y	3.0/Y	4.7/Y
Tipping Paper				
Length, mm	35.0	36.0	36.0	39.0
Color	White	White	Cork	Brown
Ventilation, %	64	31	32	31
Filler				
Total alkaloids, % (DWB)	2.29	2.09	2.03	2.03
Total red. sugars, % (DWB)	7.4	8.3	8.1	7.2
Reconstituted Tob., %	20	22	22	25
Expanded Stems, %	None	3	3	None
Expanded Tob., %	34	12	12	16
Wt. of Tob., g (12.5% OV)	0.784	0.912	0.911	0.721
Rod Length, mm	89.8	88.1	88.0	85.0
Rod Density, g/cc	0.221	0.244	0.243	0.239

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

100 - 120mm MENTHOL

2031420222

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ULTRA LOW TAR 100 MM FILTER MENTHOL CIGARETTES
(6 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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	Now	Merit Ultra Lights	Ultra Lights
[1]Sales	0.31	0.12	0.00
Smoke			
FTC Tar, mg/cigt.	2.6	5.1	5.3
Nicotine, mg/cigt.	0.22	0.44	0.43
Puffs/cigt.	7.4	10.3	9.5
Filtration Eff., %	68	67	67
Filler Rod TPM, mg/cigt.	23.1	27.5	27.5
CO, mg/cigt.	3.3	6.6	7.4
Cigarette			
Total RTD, mm of H_2O	95	105	117
Static Burn. Time, min.	5.3	7.8	7.2
Length, mm	98.8	99.4	98.8
Circumference,mm	25.0	24.9	25.0
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	1.6	0.5	1.9
Permeability, ml/cm^2 x min.	26	26	24
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	137	137	153
Length, mm	31.0	31.5	31.0
Weight, g	0.21	0.20	0.22
Fiber denier/shape	2.9/Y	3.0/Y	2.5/Y
Tipping Paper			
Length, mm	35.0	36.0	35.0
Color	White	Cork	White
Ventilation, %	72	60	58
Filler			
Total alkaloids, % (DWB)	2.41	2.17	2.06
Total red. sugars, % (DWB)	5.1	6.1	9.3
Reconstituted Tob., %	16	22	25
Expanded Stems, %	None	None	None
Expanded Tob., %	51	21	16
Wt. of Tob., g (12.5% OV)	0.572	0.735	0.766
Rod Length, mm	67.9	67.9	67.8
Rod Density, g/cc	0.169	0.219	0.228
Menthol, mg/cigt.			
Smoke	0.26	0.47	0.32
Filler	4.5	4.3	3.8
Filter	2.8	2.5	1.7

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420223

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ULTRA LOW TAR 100 MM FILTER MENTHOL CIGARETTES
(6 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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B & H DeLuxe Ultra Lights (Box)	Kool Ultra*	
0.47	0.06	Sales
		Smoke
5.6	*	FTC Tar, mg/cigt.
0.45	*	Nicotine, mg/cigt.
9.1	*	Puffs/cigt.
62	57	Filtration Eff., %
26.5	23.6	Filler Rod TPM, mg/cigt.
6.4	*	CO, mg/cigt.
		Cigarette
117	58	Total RTD, mm of H_2O
6.7	6.7	Static Burn. Time, min.
98.4	99.0	Length, mm
24.1	24.9	Circumference, mm
		Paper
Cit.	Cit.	Component Type
1.5	0.9	Component Percent
44	46	Permeability, ml/cm² x min.
		Filter
CA	CA	Type
140	88	RTD, mm of H_2O
31.5	26.9	Length, mm
0.19	0.20	Weight, g
3.0/Y	4.0/Y	Fiber denier/shape
		Tipping Paper
36.0	36.0	Length, mm
White	Cork	Color
55	57	Ventilation, %
		Filler
1.94	2.32	Total alkaloids, % (DWB)
7.6	6.7	Total red. sugars, % (DWB)
22	13	Reconstituted Tob., %
3	10	Expanded Stems, %
19	11	Expanded Tob., %
0.713	0.819	Wt. of Tob., g (12.5% OV)
67.0	72.1	Rod Length, mm
0.230	0.231	Rod Density, g/cc
		Menthol, mg/cigt.
0.40	0.23	Smoke
3.6	2.9	Filler
2.0	1.4	Filter

*The FTC has determined that the present testing methodology does not accurately measure Brown & Williamson's Barclay and Kool Ultra cigarette smoke deliveries. Data are given on page XVIII.

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LOW TAR 100 MM FILTER MENTHOL CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

	True	Kool Lights	
[1]Sales	0.12	0.08	
Smoke			
FTC Tar, mg/cigt.	8.0	8.4	
Nicotine, mg/cigt.	0.73	0.73	0.9
Puffs/cigt.	9.6	9.5	8.9
Filtration Eff., %	49	57	61
Filler Rod TPM, mg/cigt.	27.0	29.0	26.9
CO, mg/cigt.	7.3	8.7	11.1
Cigarette			
Total RTD, mm of H_2O	56	117	144
Static Burn. Time, min.	6.4	6.9	6.8
Length, mm	98.9	98.8	98.9
Circumference, mm	25.0	24.9	25.0
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	2.0	0.5	0.9
Permeability, $ml/cm^2 \times min.$	28	22	38
Filter			
Type	-	CA	CA
Inner	CA	-	-
Outer	PL	-	-
RTD, mm of H_2O	71	106	135
Length, mm	26.8	28.8	31.0
Weight, g	0.16	0.18	0.28
Fiber denier/shape	-	3.4/Y	2.4/Y
Inner	1.8/Y	-	-
Outer	-	-	-
Tipping Paper			
Length, mm	34.0	36.0	35.0
Color	White	Cork	Cork
Ventilation, %	57	38	31
Filler			
Total alkaloids, % (DWB)	2.33	2.30	1.92
Total red. sugars, % (DWB)	5.5	7.0	7.2
Reconstituted Tob., %	20	13	25
Expanded Stems, %	None	10	None
Expanded Tob., %	14	11	16
Wt. of Tob., g (12.5% OV)	0.811	0.795	0.747
Rod Length, mm	72.2	70.0	67.9
Rod Density, g/cc	0.226	0.231	0.221
Menthol, mg/cigt.			
Smoke	0.38	0.34	0.39
Filler	3.3	2.8	3.7
Filter	0.9	1.3	1.8

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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LOW TAR 100 MM FILTER MENTHOL CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

Belair	Salem Lights	Newport Lights	
0.11	1.39	0.05	Sales[1]
			Smoke
8.9	8.9	9.0	FTC Tar, mg/cigt.
0.65	0.72	0.79	Nicotine, mg/cigt.
8.8	9.6	9.6	Puffs/cigt.
49	59	52	Filtration Eff., %
22.8	28.0	28.0	Filler Rod TPM, mg/cigt.
7.9	8.9	7.8	CO, mg/cigt.
			Cigarette
109	117	99	Total RTD, mm of H_2O
6.7	6.8	7.1	Static Burn. Time, min.
98.7	99.0	98.9	Length, mm
24.9	25.0	24.9	Circumference, mm
			Paper
Cit.	Cit.	Cit.	Component Type
0.3	0.5	2.0	Component Percent
42	36	31	Permeability, ml/cm² x min.
			Filter
CA	CA	CA	Type
-	-	-	Inner
-	-	-	Outer
78	117	84	RTD, mm of H_2O
29.9	31.0	26.9	Length, mm
0.17	0.19	0.16	Weight, g
3.6/Y	2.4/Y	2.8/Y	Fiber denier/shape
-	-	-	Inner
-	-	-	Outer
			Tipping Paper
36.0	35.0	34.0	Length, mm
White	White	Cork	Color
34	40	48	Ventilation, %
			Filler
2.08	2.06	2.34	Total alkaloids, % (DWB)
5.7	7.8	8.2	Total red. sugars, % (DWB)
11	25	22	Reconstituted Tob., %
14	None	None	Expanded Stems, %
12	16	11	Expanded Tob., %
0.772	0.742	0.821	Wt. of Tob., g (12.5% OV)
68.8	68.0	72.0	Rod Length, mm
0.227	0.219	0.231	Rod Density, g/cc
			Menthol, mg/cigt.
0.39	0.41	0.37	Smoke
2.7	3.1	2.6	Filler
1.1	1.1	1.1	Filter

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LOW TAR 100 MM FILTER MENTHOL CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

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	Merit	Marlboro Lights (Box)	Kent Golden [illegible]
[1]Sales	0.12	0.10	0.02
Smoke			
FTC Tar, mg/cigt.	9.6	9.6	9.6
Nicotine, mg/cigt.	0.77	0.77	0.83
Puffs/cigt.	9.8	9.8	9.4
Filtration Eff., %	57	54	53
Filler Rod TPM, mg/cigt.	27.7	25.0	28.1
CO, mg/cigt.	10.8	10.2	8.6
Cigarette			
Total RTD, mm of H_2O	122	116	106
Static Burn. Time, min.	7.0	7.9	6.7
Length, mm	99.7	98.7	98.8
Circumference,mm	24.9	25.0	24.9
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	1.9	0.9	2.0
Permeability, ml/cm^2 x min.	46	48	27
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	110	101	84
Length, mm	31.5	31.4	26.8
Weight, g	0.19	0.19	0.15
Fiber denier/shape	3.2/Y	3.9/Y	3.0/Y
Tipping Paper			
Length, mm	36.0	36.0	34.0
Color	Cork	White	White
Ventilation, %	33	31	41
Filler			
Total alkaloids, % (DWB)	2.11	2.14	2.35
Total red. sugars, % (DWB)	6.8	8.3	8.2
Reconstituted Tob., %	22	22	22
Expanded Stems, %	3	None	None
Expanded Tob., %	12	15	11
Wt. of Tob., g (12.5% OV)	0.808	0.785	0.826
Rod Length, mm	68.1	67.3	72.1
Rod Density, g/cc	0.241	0.235	0.232
Menthol, mg/cigt.			
Smoke	0.56	0.50	0.40
Filler	3.6	2.9	2.6
Filter	2.0	2.0	1.3

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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LOW TAR 100 MM FILTER MENTHOL CIGARETTES
(15 MG TAR OR LESS)
(Brands Ranked by FTC Tar, left to right)

B & H Lights	B & H Lights (Box)	Satin	
0.45	0.05	0.02	[1]Sales
			Smoke
10.3	10.6	10.8	FTC Tar, mg/cigt.
0.80	0.79	0.84	Nicotine, mg/cigt.
10.7	9.4	8.9	Puffs/cigt.
56	53	51	Filtration Eff., %
31.0	27.9	27.9	Filler Rod TPM, mg/cigt.
11.1	11.3	11.9	CO, mg/cigt.
			Cigarette
120	113	121	Total RTD, mm of H_2O
7.9	7.4	6.8	Static Burn. Time, min.
99.5	98.6	98.6	Length, mm
24.9	24.2	24.9	Circumference, mm
			Paper
Cit.	Cit.	Cit.	Component Type
0.5	1.6	1.9	Component Percent
45	47	29	Permeability, ml/cm^2 x min.
			Filter
CA	CA	CA	Type
107	97	85	RTD, mm of H_2O
31.4	31.5	26.8	Length, mm
0.19	0.19	0.15	Weight, g
2.6/Y	3.3/Y	2.6/Y	Fiber d-nier/shape
			Tipping Paper
36.0	36.0	34.0	Length, mm
White	White	White	Color
33	28	28	Ventilation, %
			Filler
2.04	2.11	2.26	Total alkaloids, % (DWB)
7.3	6.6	7.5	Total red. sugars, % (DWB)
22	22	22	Reconstituted Tob., %
3	3	None	Expanded Stems, %
12	12	11	Expanded Tob., %
0.813	0.746	0.818	Wt. of Tob., g (12.5% OV)
68.2	67.2	71.8	Rod Length, mm
0.242	0.238	0.231	Rod Density, g/cc
			Menthol, mg/cigt.
0.64	0.68	0.41	Smoke
3.7	3.7	2.4	Filler
2.0	1.9	1.0	Filter

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FULL FLAVORED 100 MM FILTER MENTHOL CIGARETTES
(16 MG TAR OR MORE)
(Brands Ranked by FTC Tar, left to Right)

	B & H	Salem	Kool	Newport
[1]Sales	0.89	1.14	0.63	0.57
Smoke				
FTC Tar, mg/cigt.	15.7	16.3	16.6	18.1
Nicotine, mg/cigt.	1.11	1.13	1.22	1.33
Puffs/cigt.	10.4	10.0	8.9	9.1
Filtration Eff., %	50	48	47	46
Filler Rod TPM, mg/cigt.	29.6	29.3	26.9	30.0
CO, mg/cigt.	14.4	15.2	15.9	18.0
Cigarette				
Total RTD, mm of H_2O	117	116	131	127
Static Burn. Time, min.	7.8	7.3	7.0	7.3
Length, mm	99.4	99.5	98.9	98.7
Circumference, mm	24.9	25.0	24.9	24.9
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	0.5	0.5	0.5	0.7
Permeability, ml/cm^2 x min.	46	23	46	18
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	74	71	70	62
Length, mm	27.2	27.2	26.7	26.9
Weight, g	0.16	0.16	0.15	0.17
Fiber denier/shape	3.7/Y	3.5/Y	3.8/Y	4.6/Y
Tipping Paper				
Length, mm	32.0	32.0	32.0	34.0
Color	White	White	Cork	Cork
Ventilation, %	13	16	None	None
Filler				
Total alkaloids, % (DWB)	2.05	2.03	2.45	2.35
Total red. sugars, % (DWB)	7.5	7.5	6.5	8.6
Reconstituted Tob., %	22	25	13	22
Expanded Stems, %	3	None	10	None
Expanded Tob., %	12	16	11	11
Wt. of Tob., g (12.5% OV)	0.853	0.825	0.810	0.820
Rod Length, mm	72.2	72.3	72.2	71.8
Rod Density, g/cc	0.239	0.230	0.227	0.231
Menthol, mg/cigt.				
Smoke	0.71	0.55	0.54	0.51
Filler	3.3	2.5	2.3	1.9
Filter	1.3	0.9	1.0	0.9

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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120 MM FILTER MENTHOL CIGARETTES
(Brands Ranked by FTC Tar, left to right)

	Carlton	Virginia Slims Lights (Box)	Saratoga (Box)	More
[1]Sales	0.12	0.25	0.06	0.42
Smoke				
FTC Tar, mg/cigt.	5.9	13.2	13.5	15.4
Nicotine, mg/cigt.	0.57	0.99	1.03	1.22
Puffs/cigt.	11.3	12.9	12.6	12.0
Filtration Eff., %	43	50	51	49
Filler Rod TPM, mg/cigt.	20.7	26.9	28.0	31.7
CO, mg/cigt.	4.9	13.0	12.8	19.7
Cigarette				
Total RTD, mm of H_2O	102	131	133	168
Static Burn. Time, min.	6.0	7.8	7.2	7.8
Length, mm	119.7	119.5	119.3	119.9
Circumference, mm	22.3	23.1	23.1	21.1
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	0.9	0.4	0.5	1.1
Color	White	White	White	Brown
Permeability, ml/cm² x min.	50	44	34	15
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	82	99	101	123
Length, mm	29.8	31.4	31.5	35.0
Weight, g	0.15	0.16	0.16	0.16
Fiber denier/shape	4.8/Y	3.6/Y	3.0/Y	4.9/Y
Tipping Paper				
Length, mm	35.0	36.0	36.0	39.0
Color	White	White	Cork	Brown
Ventilation, %	63	31	30	33
Filler				
Total alkaloids, % (DWB)	2.35	2.04	2.02	2.24
Total red. sugars, % (DWB)	6.1	7.6	7.6	7.5
Reconstituted Tob., %	20	22	22	25
Expanded Stems, %	None	3	3	None
Expanded Tob., %	34	12	12	16
Wt. of Tob., g (12.5% OV)	0.759	0.913	0.934	0.719
Rod Length, mm	89.8	88.1	87.8	84.9
Rod Density, g/cc	0.213	0.244	0.250	0.239
Menthol, mg/cigt.				
Smoke	0.47	0.61	0.64	0.63
Filler	4.9	3.4	3.4	2.8
Filter	1.5	1.1	1.3	0.8

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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100 MM FILTER SLIM CIGARETTES
(Brands Ranked by FTC Tar, left to right)

	Virginia Slims Ultra Lights (Box)	Virginia Slims SuperSlims (Box)	Virginia Slims Lights (Box)	Virginia Slims Lights
[1]Sales	0.30	0.11	0.46	0.16
Smoke				
FTC Tar, mg/cigt.	6.0	6.8	8.6	8.8
Nicotine, mg/cigt.	0.49	0.55	0.69	0.74
Puffs/cigt.	9.7	8.0	9.3	8.4
Filtration Eff., %	58	31	55	50
Filler Rod TPM, mg/cigt.	25.4	15.6	25.9	26.2
CO, mg/cigt.	5.9	6.2	8.3	9.9
Cigarette				
Total RTD, mm of H_2O	104	143	117	109
Static Burn. Time, min.	6.9	5.8	7.1	7.1
Length, mm	98.6	97.5	98.6	98.1
Circumference,mm	23.1	17.0	23.1	22.7
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	0.5	0.2	0.5	2.2
Permeability, ml/cm^2 x min.	39	23	45	36
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	129	111	113	103
Length, mm	31.5	27.8	31.5	30.8
Weight, g	0.17	0.08	0.17	0.15
Fiber denier/shape	3.3/Y	5.8/Y	3.1/Y	3.4/Y
Tipping Paper				
Length, mm	36.0	32.0	36.0	35.0
Color	White	White	White	Deep Tan
Ventilation, %	58	61	37	44
Filler				
Total alkaloids, % (DWB)	1.99	2.23	2.10	2.04
Total red. sugars, % (DWB)	7.7	8.6	7.6	6.7
Reconstituted Tob., %	22	18	22	25
Expanded Stems, %	3	None	3	None
Expanded Tob., %	19	None	12	16
Wt. of Tob., g (12.5% OV)	0.657	0.445	0.681	0.645
Rod Length, mm	67.1	69.7	67.1	67.3
Rod Density, g/cc	0.231	0.278	0.238	0.234

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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100 MM FILTER SLIM CIGARETTES
(Brands Ranked by FTC Tar, left [illegible])

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Capri (Box)	Newport Stripes (Box)	Virginia Slims	
0.18	0.10	0.52	[1]Sales
			Smoke
9.1	11.3	13.8	FTC Tar, mg/cigt.
0.75	0.86	1.02	Nicotine, mg/cigt.
8.9	8.9	9.8	Puffs/cigt.
31	56	45	Filtration Eff., %
21.5	27.9	26.0	Filler Rod TPM, mg/cigt.
5.7	13.6	11.5	CO, mg/cigt.
			Cigarette
144	141	118	Total RTD, mm of H_2O
7.4	6.5	7.7	Static Burn. Time, min.
97.1	98.9	99.5	Length, mm
17.2	24.9	23.1	Circumference, mm
			Paper
Cit.	Cit.	Cit.	Component Type
0.3	2.0	0.7	Component Percent
24	29	45	Permeability, ml/cm² x min.
			Filter
CA	CA	CA	Type
113	104	81	RTD, mm of H_2O
26.9	26.9	27.5	Length, mm
0.08	0.17	0.15	Weight, g
5.7/Y	3.0/Y	3.5/Y	Fiber denier/shape
			Tipping Paper
32.0	34.0	32.0	Length, mm
White	White	White	Color
55	18	18	Ventilation, %
			Filler
2.16	2.24	2.12	Total alkaloids, % (DWB)
6.8	6.8	7.7	Total red. sugars, % (DWB)
19	22	22	Reconstituted Tob., %
None	None	3	Expanded Stems, %
None	11	12	Expanded Tob., %
0.436	0.845	0.735	Wt. of Tob., g (12.5% OV)
70.2	72.0	72.0	Rod Length, mm
0.265	0.237	0.240	Rod Density, g/cc

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100 MM FILTER SLIM MENTHOL CIGARETTES
(Brands Ranked by FTC Tar, left to right)

	Virginia Slims Ultra Lights (Box)	Virginia Slims SuperSlims (Box)	Virginia Slims Lights (Box)	
[1]Sales	0.24	0.12	0.52	
Smoke				
FTC Tar, mg/cigt.	5.4	5.7	7.8	8.2
Nicotine, mg/cigt.	0.43	0.51	0.63	0.64
Puffs/cigt.	9.0	8.4	8.9	8.1
Filtration Eff., %	58	31	53	49
Filler Rod TPM, mg/cigt.	25.1	22.2	25.4	25.6
CO, mg/cigt.	5.8	5.4	8.9	9.5
Cigarette				
Total RTD, mm of H_2O	104	152	118	110
Static Burn. Time, min.	6.7	6.2	7.1	7.1
Length, mm	98.4	98.5	98.4	98.2
Circumference,mm	23.1	17.0	23.1	22.7
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	1.8	0.7	1.6	2.1
Permeability, ml/cm² x min.	45	17	45	36
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	134	132	115	98
Length, mm	31.5	27.5	31.5	30.8
Weight, g	0.18	0.07	0.17	0.15
Fiber denier/shape	3.3/Y	5.5/Y	3.2/Y	3.2/Y
Tipping Paper				
Length, mm	36.0	32.0	36.0	35.0
Color	White	White	White	Deep Tan
Ventilation, %	58	64	41	41
Filler				
Total alkaloids, % (DWB)	2.08	2.36	1.99	1.94
Total red. sugars, % (DWB)	7.5	7.8	7.1	6.6
Reconstituted Tob., %	22	18	22	25
Expanded Stems, %	3	None	3	None
Expanded Tob., %	19	None	12	16
Wt. of Tob., g (12.5% OV)	0.651	0.465	0.684	0.645
Rod Length, mm	66.8	71.0	66.9	67.4
Rod Density, g/cc	0.228	0.286	0.240	0.233
Menthol, mg/cigt.				
Smoke	0.42	0.86	0.53	0.54
Filler	3.4	4.2	3.3	3.3
Filter	1.8	1.9	1.6	1.4

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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100 MM FILTER SLIM MENTHOL CIGARETTES
(Brands Ranked by FTC Tar, left to right)

Salem Slim Lights (Box)	Capri (Box)	Newport Stripes (Box)	Virginia Slims	
0.58	0.15	0.08	0.43	[1]Sales
				Smoke
8.5	9.0	11.5	14.2	FTC Tar, mg/cigt.
0.66	0.69	0.85	0.99	Nicotine, mg/cigt.
8.5	9.1	8.9	9.7	Puffs/cigt.
50	31	57	44	Filtration Eff., %
24.6	18.9	28.9	26.5	Filler Rod TPM, mg/cigt.
8.8	5.3	13.0	12.3	CO, mg/cigt.
				Cigarette
116	163	143	128	Total RTD, mm of H_2O
6.9	7.4	7.1	7.4	Static Burn. Time, min.
98.1	96.9	99.3	99.4	Length, mm
22.7	17.1	24.9	23.1	Circumference, mm
				Paper
Cit.	Cit.	Cit.	Cit.	Component Type
0.8	0.3	2.4	0.5	Component Percent
39	24	28	45	Permeability, ml/cm^2 x min.
				Filter
CA	CA	CA	CA	Type
103	110	101	83	RTD, mm of H_2O
30.7	26.8	27.0	27.5	Length, mm
0.15	0.07	0.17	0.16	Weight, g
3.4/Y	5.7/Y	3.0/Y	3.4/Y	Fiber denier/shape
				Tipping Paper
35.0	32.0	34.0	32.0	Length, mm
White	White	White	White	Color
40	50	17	18	Ventilation, %
				Filler
2.07	1.93	2.10	2.01	Total alkaloids, % (DWB)
7.6	6.3	7.9	7.4	Total red. sugars, % (DWB)
25	11	22	22	Reconstituted Tob., %
None	None	None	3	Expanded Stems, %
20	None	11	12	Expanded Tob., %
0.632	0.436	0.854	0.738	Wt. of Tob., g (12.5% OV)
67.4	70.1	72.3	71.9	Rod Length, mm
0.228	0.267	0.240	0.242	Rod Density, g/cc
				Menthol, mg/cigt.
0.58	0.66	0.50	0.65	Smoke
3.7	3.1	2.9	2.8	Filler
1.9	0.9	1.3	1.0	Filter

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85 MM CHARCOAL FILTER CIGARETTES
(Brands Ranked by FTC Tar, left to right)

	Tareyton Lights	B & H Multifilter	Lark Lights	Tareyton
[1]Sales	0.02	0.03	0.07	
Smoke				
FTC Tar, mg/cigt.	5.6	11.0	11.3	13.7
Nicotine, mg/cigt.	0.45	0.85	0.86	0.96
Puffs/cigt.	7.2	8.8	7.1	8.7
Filtration Eff., %	56	47	46	53
Filler Rod TPM, mg/cigt.	23.6	31.4	23.5	26.3
Gas Phase Smoke Index, % Reduction	59	44	23	16
CO, mg/cigt.	6.2	10.1	10.1	14.0
Cigarette				
Total RTD, mm of H_2O	98	79	108	127
Static Burn. Time, min.	6.0	8.6	6.8	7.0
Length, mm	84.7	84.2	83.8	85.1
Circumference, mm	25.0	24.9	24.8	25.1
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	1.3	0.6	0.5	0.9
Permeability, ml/cm^2 x min.	49	31	188**	52
Filter				
Type	-	-	-*	-
Inner	C in Paper	C-CA	CA	C in Paper
Outer	CA	CA-PL	CA	CA
RTD, mm of H_2O	82	78	66	61
Length, mm	26.8	25.0	24.7	20.0
Weight, g	0.20	0.34	0.17	0.17
Fiber denier/shape	-	-	-	-
Inner	-	3.4/I	3.6/Y	-
Outer	3.0/Y	3.2/Y	3.8/Y	4.2/Y
Carbon, mg/plug	9	39	53	34
Tipping Paper				
Length, mm	32.0	30.0	30.0	24.0
Color	Cork	White	Cork	Cork
Ventilation, %	46	33	None	None
Filler				
Total alkaloids, % (DWB)	2.03	2.19	2.03	2.17
Total red. sugars, % (DWB)	6.8	7.9	7.4	8.1
Reconstituted Tob., %	20	22	15	20
Expanded Stems, %	3	3	5	3
Expanded Tob., %	41	12	23	17
Wt. of Tob., g (12.5% OV)	0.586	0.686	0.610	0.766
Rod Length, mm	58.0	59.2	59.1	65.1
Rod Density, g/cc	0.203	0.234	0.211	0.235

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.
*Space containing carbon granules.
**These cigarettes are perforated.

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100 MM CHARCOAL FILTER CIGARETTES
(Brands Ranked by FTC Tar, left to right)

	Tareyton Long Lights	Lark Lights	Parliament Lights	
[1]Sales	0.04	0.05	0.37	
Smoke				
FTC Tar, mg/cigt.	8.1	11.6	12.0	15.6
Nicotine, mg/cigt.	0.71	0.94	0.96	0.98
Puffs/cigt.	10.9	8.4	9.9	9.7
Filtration Eff., %	57	48	55	60
Filler Rod TPM, mg/cigt.	24.8	22.4	29.0	25.1
Gas Phase Smoke Index, % Reduction	51	21	51	28
CO, mg/cigt.	8.9	10.6	11.5	15.7
Cigarette				
Total RTD, mm of H_2O	116	116	119	146
Static Burn. Time, min.	6.9	6.7	7.6	7.3
Length, mm	99.7	98.6	99.5	99.8
Circumference, mm	24.9	24.7	24.9	24.8
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	1.0	0.5	0.5	1.1
Permeability, ml/cm² x min.	48	182**	48	46
Filter				
Type	-	-*	-	-
Inner	C in Paper	CA	C-CA	C in Paper
Outer	CA	CA	CA	CA
RTD, mm of H_2O	96	70	111	72
Length, mm	26.8	29.9	30.0[2]	26.8
Weight, g	0.21	0.17	0.22	0.20
Fiber denier/shape	-	-	-	-
Inner	-	3.9/Y	4.8/X	-
Outer	3.2/I	3.8/Y	3.2/Y	4.7/Y
Carbon, mg/plug	8	47	54	33
Tipping Paper				
Length, mm	32.0	35.0	36.0	32.0
Color	Cork	Cork	White	Cork
Ventilation, %	40	None	30	None
Filler				
Total alkaloids, % (DWB)	2.21	2.05	2.13	2.15
Total red. sugars, % (DWB)	7.8	7.9	7.6	8.7
Reconstituted Tob., %	20	15	22	20
Expanded Stems, %	3	5	3	3
Expanded Tob., %	17	23	12	17
Wt. of Tob., g (12.5% OV)	0.849	0.713	0.809	0.848
Rod Length, mm	73.0	68.8	69.5	73.1
Rod Density, g/cc	0.236	0.214	0.236	0.237

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.
[2]The reported value includes the recessed portion.
*Space containing carbon granules.
**These cigarette papers are perforated.

2031420236

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80 MM FILTER CIGARETTES (BOX)
(Brands Ranked by FTC Tar, left to right)

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	Parliament Lights	Winston Lights	Cam[illegible] Lights	[illegible]	[illegible]on	Marlboro
[1]Sales	0.36	0.20	0.50	[illegible]	0.54	6.84
Smoke						
FTC Tar, mg/cigt.	9.1	9.3	9.7	11.4	[illegible]	[illegible]
Nicotine, mg/cigt.	0.70	0.60	0.61	0.83	[illegible]	1.1[illegible]
Puffs/cigt.	7.1	7.3	7.6	8.1	8.0	[illegible]
Filtration Eff., %	55	59	58	55	45	[illegible]
Filler Rod TPM, mg/cigt.	29.7	30.9	29.0	27.4	28.3	32.8
CO, mg/cigt.	9.4	11.0	11.7	10.9	14.7	[illegible]
Cigarette						
Total RTD, mm of H_2O	117	151	144	136	116	112
Static Burn. Time, min.	7.4	7.6	7.3	7.2	7.4	8.1
Length, mm	79.3	78.9	79.1	79.7	78.8	79.2
Circumference,mm	24.9	25.0	25.0	24.9	25.0	25.0
Paper						
Component Type	Cit.	Cit.	Cit.	Cit.	Cit.	Cit.
Component Percent	1.8	0.4	0.5	0.7	0.6	0.5
Permeability, ml/cm^2 x min.	46	23	26	39	37	29
Filter						
Type	CA	CA	CA	CA	CA	CA
RTD, mm of H_2O	119	118	116	89	69	70
Length, mm	25.0[2]	19.0	19.0	21.0	19.0	19.0
Weight, g	0.13	0.14	0.14	0.14	0.13	0.12
Fiber denier/shape	2.4/Y	2.0/Y	2.7/Y	2.8/Y	2.6/Y	3.1/Y
Tipping Paper						
Length, mm	30.0	27.0	27.0	25.0	23.0	23.0
Color	White	Cork	Cork	White	Cork	Cork
Ventilation, %	33	21	23	20	None	13
Filler						
Total alkaloids, % (DWB)	2.09	1.80	1.85	2.05	1.92	2.06
Total red. sugars, % (DWB)	7.1	7.3	7.4	6.0	7.2	7.4
Reconstituted Tob., %	22	25	25	22	25	22
Expanded Stems, %	3	None	None	None	None	3
Expanded Tob., %	12	16	16	11	16	12
Wt. of Tob., g (12.5% OV)	0.629	0.654	0.650	0.696	0.697	0.717
Rod Length, mm	54.3	60.0	60.0	58.7	59.8	60.2
Rod Density, g/cc	0.234	0.220	0.217	0.240	0.234	0.240

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.
[2]The reported value includes the recessed portion.

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NON-FILTER CIGARETTES

(Brands Ranked by FTC Tar, left to right)

	Camel	Commander Regular	Lucky Strike	Chesterfield King	Pall Mall	Commander King Size
[1]Sales	1.53	0.01	0.45	0.22	1.86	0.705
Smoke						
FTC Tar, mg/cigt.	20.2	20.7	23.3	20.6	23.2	23.7
Nicotine, mg/cigt.	1.38	1.37	1.55	1.30	1.62	1.55
Puffs/cigt.	6.8	7.6	8.1	8.9	9.9	9.4
Filler Rod TPM, mg/cigt.	30.7	30.7	35.3	26.3	29.1	30.5
CO, mg/cigt.	12.1	10.5	14.6	12.3	14.7	12.9
Cigarette						
Total RTD, mm of H_2O	62	57	72	80	84	59
Static Burn. Time, min.	7.9	8.2	9.9	7.1	7.9	7.7
Length, mm	69.1	69.8	69.2	84.2	84.1	83.9
Circumference,mm	25.0	25.0	25.0	25.0	24.9	25.0
Paper						
Component Type	Cit.	Cit.	Phos.	Cit.	Cit.	Cit.
Component Percent	0.5	0.5	0.1	0.9	0.9	2.0
Permeability, ml/cm^2 x min.	25	24	17	50	31	48
Filler						
Total alkaloids, % (DWB)	2.22	2.14	2.09	2.01	2.11	2.13
Total red. sugars, % (DWB)	7.3	9.4	9.8	9.6	10.2	10.0
Reconstituted Tob., %	15	18	20	10	20	18
Expanded Stems, %	None	3	3	5	3	3
Expanded Tob., %	16	13	11	19	11	13
Wt. of Tob., g (12.5% OV)	0.772	0.818	0.886	0.958	1.058	0.984
Rod Density, g/cc	0.224	0.236	0.257	0.230	0.255	0.236

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

GENERICS

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85 MM BRANDED GENERICS
(Brands Ranked by FTC Tar, left to right)

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	Doral Ultra Lights	Malibu Lights	Magna Lites (Box)	[illegible]	Doral Lights
[1]Sales	0.16	0.05	0.07	0.[illegible]	
Smoke					
FTC Tar, mg/cigt.	5.6	8.4	8.8	9.6	9.9
Nicotine, mg/cigt.	0.48	0.72	0.66	0.75	0.[illegible]
Puffs/cigt.	8.4	8.5	7.5	7.1	
Filtration Eff., %	62	49	58	53	5[illegible]
Filler Rod TPM, mg/cigt.	31.8	28.5	30.1	26.7	29.[illegible]
CO, mg/cigt.	6.5	8.4	11.0	10.5	11.1
Cigarette					
Total RTD, mm of H_2O	102	106	139	130	105
Static Burn. Time, min.	8.4	7.3	7.0	7.4	7.3
Length, mm	84.0	82.9	78.8	84.2	83.9
Circumference, mm	25.0	25.0	25.0	24.7	25.0
Paper					
Component Type	Phos.	Cit.	Cit.	Cit.	Cit.
Component Percent	0.2	0.8	0.6	0.7	0.5
Permeability, ml/cm² x min.	25	44	25	26	33
Filter					
Type	CA	CA	CA	CA	CA
RTD, mm of H_2O	121	88	120	92	86
Length, mm	26.9	24.9	19.1	24.9	26.8
Weight, g	0.17	0.18	0.14	0.15	0.16
Fiber denier/shape	3.0/Y	4.0/Y	2.2/Y	3.0/Y	3.1/Y
Tipping Paper					
Length, mm	31.0	30.0	27.0	30.0	31.0
Color	White	White	White	Cork	Cork
Ventilation, %	57	39	27	24	27
Filler					
Total alkaloids, % (DWB)	2.21	2.05	1.87	2.01	2.26
Total red. sugars, % (DWB)	7.0	7.8	7.1	7.0	7.1
Reconstituted Tob., %	25	20	25	15	25
Expanded Stems, %	None	None	None	5	None
Expanded Tob., %	25	12	16	23	25
Wt. of Tob., g (12.5% OV)	0.600	0.689	0.649	0.621	0.599
Rod Length, mm	57.1	58.0	59.7	59.3	57.1
Rod Density, g/cc	0.212	0.239	0.219	0.216	0.211

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

2031420239

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85 MM BRANDED GENERICS
(Brands Ranked by FTC Tar, le[illegible])

Magna Lites	Bristol Lights	Pyramid Lights	Viceroy Lights	
0.11	0.12	0.21	0.10	[1]Sales
				Smoke
10.9	10.9	11.0	11.2	FTC Tar, mg/cigt.
0.77	0.82	0.84	0.87	Nicotine, mg/cigt.
7.4	7.8	7.8	8.2	Puffs/cigt.
57	55	52	58	Filtration Eff., %
30.2	32.9	28.8	31.4	Filler Rod TPM, mg/cigt.
12.2	12.4	13.1	11.6	CO, mg/cigt.
				Cigarette
118	119	129	126	Total RTD, mm of H_2O
7.3	7.9	7.8	7.9	Static Burn. Time, min.
83.9	84.0	83.7	83.7	Length, mm
25.1	24.9	24.7	25.0	Circumference, mm
				Paper
Cit.	Cit.	Cit.	Cit.	Component Type
0.6	0.7	0.5	0.8	Component Percent
35	20	55	31	Permeability, ml/cm^2 x min.
				Filter
CA	CA	CA	CA	Type
86	104	92	106	RTD, mm of H_2O
26.9	26.9	24.9	26.9	Length, mm
0.17	0.17	0.14	0.17	Weight, g
2.3/Y	3.2/Y	3.2/Y	2.5/Y	Fiber denier/shape
				Tipping Paper
31.0	32.0	30.0	32.0	Length, mm
White	Cork	Cork	Cork	Color
18	19	20	22	Ventilation, %
				Filler
1.92	2.32	2.11	2.17	Total alkaloids, % (DWB)
6.9	7.2	7.4	6.9	Total red. sugars, % (DWB)
25	15	15	16	Reconstituted Tob., %
None	15	5	5	Expanded Stems, %
16	None	23	None	Expanded Tob., %
0.646	0.614	0.620	0.717	Wt. of Tob., g (12.5% OV)
57.0	57.1	58.8	56.8	Rod Length, mm
0.226	0.219	0.217	0.255	Rod Density, g/cc

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85 MM BRANDED GENERICS
(Brands Ranked by FTC Tar, left to right)

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	American Lights	Cambridge Lights	Magna (Regular)	Magna
[1]Sales	0.07	0.41	0.12	0.96
Smoke				
FTC Tar, mg/cigt.	11.3	12.3	13.5	14.6
Nicotine, mg/cigt.	0.89	0.89	0.82	1.0
Puffs/cigt.	8.2	8.7	6.5	7
Filtration Eff., %	52	52	45	50
Filler Rod TPM, mg/cigt.	33.0	33.2	25.0	27.2
CO, mg/cigt.	12.1	12.3	13.3	14.6
Cigarette				
Total RTD, mm of H_2O	121	115	115	118
Static Burn. Time, min.	8.3	8.2	6.5	6.8
Length, mm	82.8	84.1	78.9	83.9
Circumference, mm	25.0	24.9	25.0	25.0
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	0.8	0.5	0.5	0.5
Permeability, ml/cm^2 x min.	28	27	36	25
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	89	89	70	75
Length, mm	25.0	27.0	19.0	21.0
Weight, g	0.17	0.17	0.13	0.14
Fiber denier/shape	3.8/Y	3.8/Y	3.4/Y	3.4/Y
Tipping Paper				
Length, mm	30.0	31.0	23.0	25.0
Color	White	Cork	Cork	Cork
Ventilation, %	22	23	None	9
Filler				
Total alkaloids, % (DWB)	2.03	1.99	2.17	2.19
Total red. sugars, % (DWB)	8.3	7.7	6.6	6.5
Reconstituted Tob., %	20	22	25	25
Expanded Stems, %	None	3	None	None
Expanded Tob., %	12	15	25	25
Wt. of Tob., g (12.5% OV)	0.708	0.670	0.622	0.620
Rod Length, mm	57.8	57.1	59.8	62.9
Rod Density, g/cc	0.247	0.238	0.210	0.199

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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85 MM BRANDED GENERIC
(Brands Ranked by FTC Tar, [illegible])

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Doral Full Flavor	Malibu	Cambridge Full Flavor	
0.53	0.04	0.33	[1]Sales
			Smoke
14.6	15.3	15.9	FTC Tar, mg/cigt.
1.06	1.14	1.05	Nicotine, mg/cigt.
7.7	9.3	8.4	Puffs/cigt.
47	41	47	Filtration Eff., %
29.5	31.1	29.7	Filler Rod TPM, mg/cigt.
14.6	12.6	13.7	CO, mg/cigt.
			Cigarette
111	107	121	Total RTD, mm of H_2O
7.2	8.1	7.8	Static Burn. Time, min.
84.0	84.7	84.1	Length, mm
25.0	25.0	24.9	Circumference, mm
			Paper
Cit.	Cit.	Cit.	Component Type
0.4	0.8	0.4	Component Percent
25	50	46	Permeability, ml/cm^2 x min.
			Filter
CA	CA	CA	Type
72	58	71	RTD, mm of H_2O
21.1	20.2	21.0	Length, mm
0.13	0.14	0.12	Weight, g
4.5/Y	4.5/Y	2.8/Y	Fiber denier/shape
			Tipping Paper
25.0	24.0	25.0	Length, mm
Cork	Cork	Cork	Color
9	13	None	Ventilation, %
			Filler
2.24	1.99	1.96	Total alkaloids, % (DWB)
7.0	9.2	6.9	Total red. sugars, % (DWB)
25	20	22	Reconstituted Tob., %
None	None	3	Expanded Stems, %
25	12	15	Expanded Tob., %
0.669	0.834	0.737	Wt. of Tob., g (12.5% OV)
62.9	64.5	63.2	Rod Length, mm
0.215	0.261	0.236	Rod Density, g/cc

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85 MM BRANDED GENERICS
(Brands Ranked by FTC Tar, left

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	American Filters	Viceroy	
[1]Sales	0.07	0.47	
Smoke			
FTC Tar, mg/cigt.	16.0	16.8	20.5
Nicotine, mg/cigt.	1.20	1.19	1.32
Puffs/cigt.	9.6	9.0	8.8
Filtration Eff., %	41	47	-
Filler Rod TPM, mg/cigt.	29.3	31.7	27.4
CO, mg/cigt.	14.2	14.3	11.9
Cigarette			
Total RTD, mm of H_2O	117	117	75
Static Burn. Time, min.	7.8	7.6	7.4
Length, mm	84.9	83.8	83.8
Circumference,mm	24.8	24.9	25.0
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.9	0.4	0.8
Permeability, ml/cm^2 x min.	44	23	50
Filter			
Type	CA	CA	-
RTD, mm of H_2O	61	76	-
Length, mm	20.0	21.0	-
Weight, g	0.13	0.13	-
Fiber denier/shape	4.5/Y	3.9/Y	-
Tipping Paper			
Length, mm	24.0	26.0	-
Color	Cork	Cork	-
Ventilation, %	12	9	-
Filler			
Total alkaloids, % (DWB)	2.08	2.08	2.02
Total red. sugars, % (DWB)	8.1	6.7	10.1
Reconstituted Tob., %	20	12	10
Expanded Stems, %	None	7	5
Expanded Tob., %	12	11	19
Wt. of Tob., g (12.5% CV)	0.809	0.735	0.951
Rod Length, mm	64.9	62.8	-
Rod Density, g/cc	0.255	0.237	0.229

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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85 MM MENTHOL BRANDED GENERICS
(Brands Ranked by FTC Tar, left to right)

	Doral Lights	Alpine Lights	Bristol Lights	Cambridge Lights
[1]Sales	0.31	0.16	0.06	
Smoke				
FTC Tar, mg/cigt.	9.7	9.8	11.4	8.9
Nicotine, mg/cigt.	0.73	0.74	0.87	0.67
Puffs/cigt.	7.5	8.0	7.7	8.5
Filtration Eff., %	52	52	51	53
Filler Rod TPM, mg/cigt.	28.3	27.5	35.5	31.7
CO, mg/cigt.	10.4	9.6	12.1	11.6
Cigarette				
Total RTD, mm of H_2O	91	108	111	112
Static Burn. Time, min.	7.2	8.3	8.1	8.0
Length, mm	84.0	83.7	84.1	84.1
Circumference, mm	25.0	24.9	24.9	25.0
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	0.5	0.4	0.6	0.5
Permeability, ml/cm^2 x min.	25	36	18	27
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	85	86	97	89
Length, mm	27.0	26.9	27.1	27.0
Weight, g	0.16	0.16	0.17	0.17
Fiber denier/shape	3.1/Y	3.0/Y	3.2/Y	3.9/Y
Tipping Paper				
Length, mm	31.0	31.0	32.0	31.0
Color	Cork	White	White	White
Ventilation, %	34	26	22	22
Filler				
Total alkaloids, % (DWB)	1.98	2.10	2.39	2.07
Total red. sugars, % (DWB)	7.9	8.4	6.6	7.1
Reconstituted Tob., %	25	22	15	22
Expanded Stems, %	None	5	15	3
Expanded Tob., %	20	15	None	15
Wt. of Tob., g (12.5% OV)	0.615	0.657	0.611	0.664
Rod Length, mm	57.0	56.8	57.0	57.1
Rod Density, g/cc	0.216	0.234	0.218	0.235
Menthol, mg/cigt.				
Smoke	0.50	0.56	0.63	0.64
Filler	2.6	2.5	2.4	2.5
Filter	1.3	1.8	1.2	1.6

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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85 MM MENTHOL BRANDED GENERIC
(Brands Ranked by FTC Tar, left t

	Doral Full Flavor	Alpine	Menthol
[1]Sales	0.11	0.14	0.0
Smoke			
FTC Tar, mg/cigt.	15.1	15.2	15.6
Nicotine, mg/cigt.	1.08	1.05	1.24
Puffs/cigt.	7.8	8.2	9.7
Filtration Eff., %	46	44	40
Filler Rod TPM, mg/cigt.	30.0	27.9	31.3
CO, mg/cigt.	15.1	13.9	13.1
Cigarette			
Total RTD, mm of H_2O	110	119	110
Static Burn. Time, min.	7.3	7.5	8.1
Length, mm	83.8	83.9	84.9
Circumference,mm	25.0	24.9	25.0
Paper			
Component Type	Cit.	Cit.	Cit.
Component Percent	0.4	0.5	0.8
Permeability, ml/cm^2 x min.	24	33	46
Filter			
Type	CA	CA	CA
RTD, mm of H_2O	67	63	57
Length, mm	21.0	21.0	20.2
Weight, g	0.12	0.13	0.14
Fiber denier/shape	2.5/Y	3.4/Y	4.0/Y
Tipping Paper			
Length, mm	25.0	25.0	24.0
Color	Cork	White	Cork
Ventilation, %	7	None	19
Filler			
Total alkaloids, % (DWB)	2.25	2.02	2.06
Total red. sugars, % (DWB)	7.4	8.6	8.6
Reconstituted Tob., %	24	22	20
Expanded Stems, %	None	5	None
Expanded Tob., %	25	15	12
Wt. of Tob., g (12.5% OV)	0.668	0.723	0.816
Rod Length, mm	62.9	62.8	64.7
Rod Density, g/cc	0.214	0.233	0.254
Menthol, mg/cigt.			
Smoke	0.47	0.63	0.64
Filler	1.8	2.2	2.6
Filter	0.8	1.1	1.3

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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100 MM BRANDED GENERICS
(Brands Ranked by FTC Tar, left to right)

	Cambridge Ultra Lights	Doral Ultra Lights	[illegible] Ultra Lights	[illegible]
[1]Sales	0.43	0.59	0.11	
Smoke				
FTC Tar, mg/cigt.	4.4	5.5	5.6	5.5
Nicotine, mg/cigt.	0.38	0.49	0.49	0.5
Puffs/cigt.	10.3	10.1	8.7	9.4
Filtration Eff., %	69	66	59	53
Filler Rod TPM, mg/cigt.	27.7	33.0	25.0	27.5
CO, mg/cigt.	6.1	7.7	8.6	4.0
Cigarette				
Total RTD, mm of H_2O	111	105	135	77
Static Burn. Time, min.	7.6	7.6	6.6	7.2
Length, mm	99.2	98.9	99.4	98.9
Circumference,mm	25.0	25.0	24.5	24.7
Paper				
Component Type	Cit.	Phos.	Cit.	Cit.
Component Percent	1.3	0.1	1.0	0.7
Permeability, ml/cm^2 x min.	46	25	47	28
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	147	135	129	82
Length, mm	31.3	31.0	26.7	29.6
Weight, g	0.21	0.20	0.17	0.16
Fiber denier/shape	2.9/Y	3.2/Y	3.2/I	4.9/Y
Tipping Paper				
Length, mm	36.0	35.0	35.0	35.0
Color	White	White	White	White
Ventilation, %	61	59	48	64
Filler				
Total alkaloids, % (DWB)	2.03	2.21	2.09	2.18
Total red. sugars, % (DWB)	7.3	7.0	7.5	8.2
Reconstituted Tob., %	22	25	24	15
Expanded Stems, %	3	None	None	5
Expanded Tob., %	15	25	24	23
Wt. of Tob., g (12.5% OV)	0.784	0.706	0.757	0.738
Rod Length, mm	67.9	68.0	72.7	69.3
Rod Density, g/cc	0.233	0.209	0.218	0.219

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000

100 MM BRANDED GENERICS
(Brands Ranked by FTC Tar, left to r

	Pyramid Ultra Lights	Malibu Lights	Savvy Lights	Cig
[1]Sales	0.40	0.18	0.01	0.1
Smoke				
FTC Tar, mg/cigt.	5.9	9.3	10.2	10.4
Nicotine, mg/cigt.	0.49	0.78	0.89	0.86
Puffs/cigt.	9.5	10.6	8.6	8.7
Filtration Eff., %	52	56	48	54
Filler Rod TPM, mg/cigt.	25.2	26.0	27.4	24.7
CO, mg/cigt.	5.0	10.7	10.5	10.9
Cigarette				
Total RTD, mm of H_2O	76	142	106	110
Static Burn. Time, min.	6.5	7.7	7.1	6.6
Length, mm	98.7	99.7	98.6	98.8
Circumference,mm	24.8	24.4	24.7	24.8
Paper				
Component Type	Cit	Cit.	Cit.	Cit.
Component Percent	0.7	0.8	0.7	0.9
Permeability, ml/cm^2 x min.	28	46	31	31
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	81	114	77	79
Length, mm	29.7	26.7	29.9	29.8
Weight, g	0.17	0.16	0.16	0.17
Fiber denier/shape	3.4/Y	3.9/Y	3.5/Y	4.0/Y
Tipping Paper				
Length, mm	35.0	32.0	35.0	35.0
Color	White	White	White	Cork
Ventilation, %	65	32	34	33
Filler				
Total alkaloids, % (DWB)	2.01	2.09	2.08	2.19
Total red. sugars, % (DWB)	7.9	9.1	8.6	7.8
Reconstituted Tob., %	15	20	15	15
Expanded Stems, %	5	None	5	5
Expanded Tob., %	23	12	23	23
Wt. of Tob., g (12.5% OV)	0.730	0.825	0.735	0.725
Rod Length, mm	69.0	72.9	68.7	68.9
Rod Density, g/cc	0.216	0.239	0.220	0.215

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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100 MM BRANDED GENERIC
(Brands Ranked by FTC Tar, [illegible])

Doral Lights	Bristol Lights	Cambridge Lights	American Lights	
1.09	0.14	0.61	0.10	[1]Sales
				Smoke
10.5	10.8	11.3	(11.3)	FTC Tar, mg/cigt.
0.89	0.90	0.85	(0.89)	Nicotine, mg/cigt.
9.2	9.5	10.4	(9.8)	Puffs/cigt.
51	54	59	52	Filtration Eff., %
28.6	34.7	31.0	26.6	Filler Rod TPM, mg/cigt.
9.9	14.9	12.9	12.0	CO, mg/cigt.
				Cigarette
94	126	126	124	Total RTD, mm of H_2O
7.0	8.1	7.9	7.5	Static Burn. Time, min.
99.1	99.6	99.3	99.4	Length, mm
25.0	24.7	25.0	24.1	Circumference, mm
				Paper
Cit.	Cit.	Cit.	Cit.	Component Type
0.6	0.6	0.6	0.9	Component Percent
24	21	23	45	Permeability, $ml/cm^2 \times min.$
				Filter
CA	CA	CA	CA	Type
77	108	107	91	RTD, mm of H_2O
30.9	31.4	31.4	26.8	Length, mm
0.17	0.19	0.19	0.17	Weight, g
3.6/Y	3.2/Y	2.8/Y	3.8/Y	Fiber denier/shape
				Tipping Paper
35.0	36.0	36.0	32.0	Length, mm
Cork	Cork	Cork	White	Color
38	25	29	27	Ventilation, %
				Filler
2.28	2.17	2.02	2.06	Total alkaloids, % (DWB)
7.0	5.9	7.8	8.6	Total red. sugars, % (DWB)
25	15	22	20	Reconstituted Tob., %
None	15	3	None	Expanded Stems, %
25	None	15	12	Expanded Tob., %
0.726	0.775	0.792	(0.826)	Wt. of Tob., g (12.5% OV)
68.1	68.2	68.0	72.6	Rod Length, mm
0.215	0.234	0.234	(0.246)	Rod Density, g/cc

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100 MM BRANDED GENERICS
(Brands Ranked by FTC Tar, left to [illegible])

	Pyramid Lights	Viceroy Lights	Doral Full Flavor	Malibu
[1]Sales	0.25	0.12	0.70	
Smoke				
FTC Tar, mg/cigt.	11.8	13.0	14.6	15.[illegible]
Nicotine, mg/cigt.	0.91	0.96	1.04	1.14
Puffs/cigt.	10.0	9.7	8.1	10.0
Filtration Eff., %	52	58	53	47
Filler Rod TPM, mg/cigt.	28.9	30.1	29.9	26.5
CO, mg/cigt.	12.1	13.4	16.5	14.9
Cigarette				
Total RTD, mm of H_2O	107	135	130	125
Static Burn. Time, min.	7.5	7.5	7.0	7.2
Length, mm	98.7	98.7	98.9	99.7
Circumference, mm	24.7	24.9	24.9	24.5
Paper				
Component Type	Cit.	Cit.	Cit.	Cit.
Component Percent	0.6	1.0	0.6	1.2
Permeability, ml/cm^2 x min.	59	48	24	45
Filter				
Type	CA	CA	CA	CA
RTD, mm of H_2O	81	101	82	68
Length, mm	29.8	29.8	30.8	26.8
Weight, g	0.17	0.18	0.18	0.16
Fiber denier/shape	4.2/Y	2.9/Y	4.5/Y	6.6/Y
Tipping Paper				
Length, mm	35.0	36.0	35.0	32.0
Color	Cork	Cork	Cork	Cork
Ventilation, %	34	19	None	12
Filler				
Total alkaloids, % (DWB)	1.97	2.12	2.23	2.07
Total red. sugars, % (DWB)	8.3	7.3	7.2	8.7
Reconstituted Tob., %	15	16	25	20
Expanded Stems, %	5	5	None	None
Expanded Tob., %	23	None	25	12
Wt. of Tob., g (12.5% OV)	0.724	0.853	0.712	0.840
Rod Length, mm	68.9	68.9	68.1	72.8
Rod Density, g/cc	0.216	0.251	0.211	0.242

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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100 MM BRANDED GENERIC
(Brands Ranked by FTC Tar, 1

American Filters	Cambridge Full Flavor	Viceroy	
0.16	0.42	0.25	[1]Sales
			Smoke
16.2	16.3	18.2	FTC Tar, mg/cigt.
1.14	1.11	1.33	Nicotine, mg/cigt.
9.8	8.6	10.6	Puffs/cigt.
46	49	52	Filtration Eff., %
24.5	27.7	33.6	Filler Rod TPM, mg/cigt.
17.7	15.1	15.2	CO, mg/cigt.
			Cigarette
127	116	118	Total RTD, mm of H_2O
7.4	7.0	7.8	Static Burn. Time, min.
99.5	99.2	98.9	Length, mm
24.5	24.9	24.9	Circumference,mm
			Paper
Cit.	Cit.	Cit.	Component Type
0.9	1.8	0.6	Component Percent
26	47	24	Permeability, ml/cm^2 x min.
			Filter
CA	CA	CA	Type
67	65	78	RTD, mm of H_2O
26.7	31.5	26.6	Length, mm
0.15	0.18	0.16	Weight, g
4.5/Y	4.4/Y	4.1/Y	Fiber denier/shape
			Tipping Paper
32.0	36.0	32.0	Length, mm
Cork	Cork	Cork	Color
7	None	15	Ventilation, %
			Filler
2.09	2.02	2.09	Total alkaloids, % (DWB)
8.5	7.2	7.2	Total red. sugars, % (DWB)
20	22	12	Reconstituted Tob., %
None	3	7	Expanded Stems, %
12	15	11	Expanded Tob., %
0.831	0.783	0.839	Wt. of Tob., g (12.5% OV)
72.8	67.7	72.3	Rod Length, mm
0.239	0.235	0.235	Rod Density, g/cc

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100 MM MENTHOL BRANDED GENERICS
(Brands Ranked by FTC Tar, left to right)

	Doral Lights	Alpine Lights	Savvy Lights	Cambridge Pyramid Lights	
[1]Sales	0.65	0.23	0.01	0.34	0.10
Smoke					
FTC Tar, mg/cigt.	9.5	10.0	10.2	11.2	11.9
Nicotine, mg/cigt.	0.68	0.79	0.90	0.85	0.96
Puffs/cigt.	9.2	9.7	8.9	10.3	10.0
Filtration Eff., %	59	55	50	57	50
Filler Rod TPM, mg/cigt.	28.9	27.4	26.5	32.0	29.7
CO, mg/cigt.	12.2	11.1	9.4	11.6	12.3
Cigarette					
Total RTD, mm of H_2O	121	123	109	125	108
Static Burn. Time, min.	6.9	7.7	7.1	8.1	6.9
Length, mm	99.1	99.5	98.6	99.5	98.6
Circumference, mm	25.0	25.0	24.6	25.0	24.7
Paper					
Component Type	Cit.	Cit.	Cit.	Cit.	Cit.
Component Percent	0.9	0.5	0.6	0.5	0.4
Permeability, ml/cm^2 x min.	24	31	34	27	81
Filter					
Type	CA	CA	CA	CA	CA
RTD, mm of H_2O	115	102	81	107	81
Length, mm	30.8	31.6	29.8	31.4	29.7
Weight, g	0.19	0.19	0.17	0.19	0.17
Fiber denier/shape	3.6/Y	3.0/Y	3.5/Y	2.8/Y	4.4/Y
Tipping Paper					
Length, mm	35.0	36.0	35.0	36.0	35.0
Color	Cork	White	White	White	White
Ventilation, %	33	28	37	30	34
Filler					
Total alkaloids, % (DWB)	1.90	2.12	2.11	2.01	2.05
Total red. sugars, % (DWB)	7.8	8.9	8.7	7.5	8.1
Reconstituted Tob., %	25	22	15	22	15
Expanded Stems, %	None	5	5	3	5
Expanded Tob., %	20	15	23	15	23
Wt. of Tob., g (12.5% OV)	0.736	0.787	0.733	0.797	0.721
Rod Length, mm	68.3	67.9	68.8	68.1	68.9
Rod Density, g/cc	0.217	0.234	0.221	0.236	0.215
Menthol, mg/cigt.					
Smoke	0.48	0.61	0.40	0.62	0.47
Filler	3.3	3.0	1.9	3.4	2.1
Filter	1.4	2.0	1.1	1.9	1.4

[1]First quarter sales in billions of cigarettes - Maxwell Report - March, 1990.

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100 MM MENTHOL BRANDED GENERICS
(Brands Ranked by FTC Tar, left to right)

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Malibu Low Tar	Britol Lights	Alpine	Doral Full Flavor	
0.84	0.07	0.18	0.16	[1]Sales
				Smoke
11.5	12.5	14.9	15.2	FTC Tar, mg/cigt.
0.92	0.93	1.07	1.08	Nicotine, mg/cigt.
10.2	10.0	9.7	8.1	Puffs/cigt.
53	54	45	51	Filtration Eff., %
27.7	35.9	25.5	30.2	Filler Rod TPM, mg/cigt.
11.9	14.0	14.1	16.9	CO, mg/cigt.
				Cigarette
122	123	110	129	Total RTD, mm of H_2O
7.4	7.8	7.5	7.4	Static Burn. Time, min.
99.5	99.7	99.6	98.8	Length, mm
24.5	24.9	24.9	25.0	Circumference,mm
				Paper
Cit.	Cit.	Cit.	Cit.	Component Type
0.9	0.7	0.5	0.6	Component Percent
44	19	47	24	Permeability, ml/cm^2 x min.
				Filter
CA	CA	CA	CA	Type
93	111	63	77	RTD, mm of H_2O
26.8	31.4	27.5	30.9	Length, mm
0.17	0.19	0.17	0.18	Weight, g
3.8/Y	3.2/Y	4.5/Y	3.8/Y	Fiber denier/shape
				Tipping Paper
32.0	36.0	32.0	35.0	Length, mm
White	White	White	Cork	Color
30	28	12	None	Ventilation, %
				Filler
2.15	2.34	2.07	2.21	Total alkaloids, % (DWB)
9.4	6.4	8.8	7.5	Total red. sugars, % (DWB)
20	15	22	24	Reconstituted Tob., %
None	15	5	None	Expanded Stems, %
12	None	15	25	Expanded Tob., %
0.847	0.766	0.827	0.718	Wt. of Tob., g (12.5% OV)
72.7	68.3	72.2	67.9	Rod Length, mm
0.245	0.228	0.232	0.213	Rod Density, g/cc
				Menthol, mg/cigt.
0.72	0.64	0.65	0.47	Smoke
4.0	3.3	2.8	2.0	Filler
2.2	1.2	1.4	0.9	Filter

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BLEND COMPONENTS
PERCENT BY WEIGHT

	Reconstituted Tobacco	Expanded Stems	Expanded Tobacco
PHILIP MORRIS			
Alpine 85, 100, Alpine Lights 85, 100	22		15
B & H 100 (plain & menthol) B & H Lights 100 (plain & menthol) B & H Multifilter 85 (plain) Marlboro 80,85,100 Marlboro Lights 85,100 Merit 85,100 (plain & menthol) Parliament Lights 80,85,100 Saratoga 120 (plain & menthol) Va. Slims 100 (plain & menthol) Va. Slims Lights 100 (plain & men.) Va. Slims Lights 120 (plain & men.)	22		2
Merit Ultra Lights 85,100 (plain & men.)	22	None	21
Marlboro Menthol 85 Marlboro Lights Menthol 85, 100 (Box)	22	None	15
B & H DeLuxe Ultra Lts. 100 (plain & men.) Va. Slims Ultra Lights 100 (plain & men.)	22	3	19
Commander 70 & 85 (NF)	18	3	13
Cambridge Ultra Lights 100 Cambridge Lights 85 & 100 (plain & men.) Cambridge Full Flavor 85 & 100	22	3	15
Va. Slims SuperSlims 100 (plain & men.)	18	None	None
Bristol Lights 85,100 (plain & men.)	15	15	None
BROWN & WILLIAMSON			
Barclay 85,100	15	7	11
Kool Milds 80,85 Kool 85,100 Kool Lights 85,100 Kool Ultra 85,100	13	10	11
Belair 85,100 Raleigh 85,100	11	14	12
Viceroy 85,100	12	7	11
Raleigh Lights 85, 100 Viceroy Lights 85, 100	16	5	None
Capri 100	19	None	None
Capri Menthol 100	11	None	None
LORILLARD			
Kent 80,85,100 Kent Golden Lights 85,100 (plain & men.) Newport 85,100 Newport Lights 85,100 Newport Stripes 100 (plain & menthol) Old Gold 85 Satin 100 (plain & menthol)	22	None	11
True 85,100 (plain & menthol)	20	None	14
Kent III 85,100	15	None	25

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BLEND COMPONENTS
PERCENT BY WEIGHT

	Reconstituted Tobacco	Burley	Expanded Tobacco
REYNOLDS			
Salem Ultra Lights 85	25		28
Doral Full Flavor 80,85,100 (plain & men.) Doral Lights 85,100 Doral Ultra Lights 85,100 Winston Ultra Lights 85,100 Vantage Ultra Lights 85,100 Magna 80,85	25	None	
Doral Lights Menthol 85,100 Salem Slim Lights 100 Vantage 85,100	25	None	20
Camel 85 Camel Lights 80,85,100 Magna Lites 80,85 More 120 (plain & menthol) More Lights 100 (plain & menthol) Ritz 100 (plain & menthol) Salem 85,100 Salem Lights 85,100 Salem Ultra Lights 100 Vantage 85,100 Menthol Winston 80,85,100 Winston Lights 80,85,100	25	None	16
Now 85,100 (plain & menthol)	16	None	51
Camel 70 (NF)	15	None	16
AMERICAN			
Malibu Ultra Lights 100	24	None	24
Carlton 80,85,100 (plain & men.)	20	None	46
Carlton 120 (plain & menthol)	20	None	34
American Filters 85,100 American Lights 85,100 Lucky Strike 85 Malibu 85,100 (plain & menthol) Malibu Lights 85,100	20	None	12
Tareyton Lights 85	20	3	41
Pall Mall 100 Tareyton 85,100 Tareyton Long Lights 100	20	3	17
Lucky Strike 70 (NF) Pall Mall 85 (NF)	20	3	11
LIGGETT			
Chesterfield Lights 85,100 Lark Lights 85,100 L & M 85,100 Pyramid Lights 85,100, Men. 100 Pyramid Ultra Lights 100 Savvy Lights 100 (plain & men.) Savvy Ultra Lights 100	15	5	23
Chesterfield 85 (NF) Pyramid 85 (NF)	10	5	19

These data are based on the average values for the brands manufactured in January through June, 1990.

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MINOR BRANDS

Brand	Cigt. Length, mm	FTC Tar, mg/cigt.	Nicotine, mg/cigt.		CO, mg/cigt.
FILTER - PLAIN					
Now 80 (Box)	78.6	0.2	0.00	6.0	
Kent Golden Lights 80 (Box)	79.0	8.0	0.69	6.8	
L & M 80 (Box)	81.0	13.5	1.11	7.8	
Camel 80 (Box)	79.1	15.3	0.99	7.9	
Barclay 80 (Box)	80.0	*	*	*	
Ultra Carlton 85 (Box)	82.9	0.2	0.00	6.3	0.3
Triumph 85	83.7	3.4	0.31	6.9	3.4
Old Gold Lights 85	84.3	7.8	0.73	7.0	9.6
Century Lights 85 25's	82.8	8.2	0.70	7.8	10.0
Lucky Strike Lights 85	83.0	8.3	0.67	8.2	8.9
PLAYERS LIGHTS 85 25'S	84.0	10.1	0.76	8.4	10.8
Richland Lights 85 25's	84.6	10.1	0.77	8.0	11.1
PLAYERS 85 (BOX)	83.0	11.5	0.86	8.2	11.8
Lucky Strike 85 (Box)	82.9	13.4	1.04	8.3	12.4
Century 85 25's	82.9	14.1	0.98	7.3	16.9
B & H 85 (BOX)	84.3	14.8	1.25	9.3	11.4
Pall Mall 85	84.9	14.9	1.12	9.4	13.6
Richland 85 25's	84.1	17.3	1.25	8.9	13.6
Kent III 100 (Box)	98.8	5.1	0.45	8.2	7.7
Triumph 100	99.0	5.5	0.47	8.1	6.3
Lucky Strike Lights 100	99.7	8.9	0.75	10.5	9.3
Ritz 100 (Box)	98.2	9.4	0.77	9.2	10.1
Kent Golden Lights 100 (Box)	98.9	9.5	0.85	9.0	9.4
Pall Mall Lights 100	99.7	9.9	0.82	9.9	11.1
Century Lights 100 25's	97.8	11.0	0.89	8.4	12.4
Eve Slim Lights 100 (Box)	97.7	11.5	0.9[illegible]	7.7	9.6
PLAYERS LIGHTS 100 25'S	99.6	11.8	0.87	10.3	12.1
Silva Thins 100	98.7	12.1	1.00	9.4	11.4
Richland Lights 100 25's	99.3	12.5	0.90	9.3	13.8
Lucky Strike 100	99.9	12.7	1.01	10.6	11.8
HI-LITE 100 (BOX)	98.6	12.8	1.08	10.9	12.9
PLAYERS 100 (BOX)	98.4	13.4	1.00	9.2	12.3
St. Moritz 85	100.2	14.7	1.13	8.5	15.1
Century 100 25's	97.7	15.1	1.11	8.1	18.3
P.M. INTERNATIONAL 100 (BOX)	98.5	15.5	1.13	10.0	15.3
MARLBORO 100 (BOX)	98.6	15.6	1.12	10.4	14.1
B & H (BOX)	98.4	16.0	1.13	10.4	15.3
Richland 100 25's	99.0	17.4	1.29	10.9	15.8
Old Gold 100	98.8	17.7	1.35	[illegible].5	16.3
Eve Lights 120 (Box)	119.7	12.3	1.08	13.3	11.4
Max 120	119.4	15.6	1.18	9.8	16.7
Tall 120	119.6	18.0	1.56	15.4	16.9
FILTER - CHARCOAL					
Lark 85	84.3	12.6	1.03	7.3	13.5
Lark 100	98.7	13.8	1.11	9.2	13.3

Filter Type: CA = Cellulose Acetate, C = Carbon

*The FTC has determined that the present testing methodology does not accurately measure Brown & Williamson's Barclay and Kool Ultra cigarette smoke deliveries. Data are given on page XVIII.

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MINOR BRANDS

Total RTD, mm of H_2O	Ventilation, %	Circumference, mm	Permeability, ml/cm² x min.	Color	Tipping Paper Length, mm	Filter Length, mm	
101	95	24.9	39	White	32.0	27.5	
102	32	25.0	28	White	30.0	25.0	C
107	None	24.9	184*	White	26.0	21.1	CA
120	None	24.9	38	Cork	23.0	19.0	CA
47	82	24.9	24	Cork	32.0	27.0	CA
111	97	25.0	116*	White	36.0	32.1	CA
101	64	24.9	29	Cork	32.0	24.9	CA/CA
102	34	25.1	29	Cork	32.0	24.7	CA
132	35	24.2	24	Cork	27.0	23.1	CA
132	32	25.0	46	Cork	30.0	24.9	CA
118	26	25.0	44	White	31.0	26.9	CA
129	22	24.8	32	White	32.0	26.8	CA
109	23	25.0	22	Cork	32.0	26.9	CA
122	12	25.0	26	Cork	30.0	25.0	CA
147	None	24.1	26	Cork	27.0	23.0	CA
110	21	24.8	46	White	30.0	25.0	CA
113	15	24.9	47	Cork	24.0	20.1	CA
119	9	24.8	24	Cork	26.0	21.0	CA
128	50	24.9	28	White	[illegible].0	26.9	CA/CA
122	49	24.9	30	Cork	[illegible].0	27.0	CA/CA
123	40	24.5	46	Cork	[illegible].0	26.9	CA
129	35	24.2	37	White	35.0	31.1	CA
98	39	25.0	25	White	34.0	26.7	CA
137	28	24.5	46	White	36.0	26.8	CA
122	26	24.1	25	Cork	35.0	31.0	CA
119	None	22.7	188*	White	35.0	29.7	CA
119	29	25.0	27	White	36.0	31.5	CA
121	25	23.0	26	White	36.0	31.9	CA
141	17	24.9	45	White	36.0	26.9	CA
119	27	24.5	48	Cork	32.0	26.8	CA
117	26	24.9	44	Cork	31.5	27.4	CA
107	21	24.1	44	Cork	36.0	31.4	CA
103	None	25.0	101*	White	32.0	26.9	CA
142	8	24.1	25	Cork	35.0	31.0	CA
113	14	24.8	33	Cork	32.0	27.5	CA
117	13	25.0	34	Cork	31.7	27.4	CA
114	13	24.9	38	White	32.0	27.4	CA
125	14	24.9	23	Cork	32.0	26.9	CA
122	None	25.1	19	Cork	34.0	26.8	CA
108	54	21.1	10	White	35.0	29.8	CA
145	17	22.0	18	White	35.0	29.7	CA
126	34	22.4	14	White	35.0	29.8	CA
114	None	24.8	165	Cork	30.0	25.0	CA/C/CA**
119	None	24.6	167	Cork	35.0	29.8	CA/C/CA**

*These cigarette papers are perforated
**Contains carbon.

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MINOR BRANDS

Brand	Cigt. Length, mm	FTC Tar, mg/cigt.	Nicotine, mg/cigt.	Carbon Monoxide, mg/cigt.	Smoke Menthol, mg/cigt.
FILTER - MENTHOL					
Kool Menthol (NF)	70.3	19.7	1.29	6.5	0.62
Newport Lights Men. 80 (Box)	79.3	7.9	0.70	6.8	0.29
Kool Menthol 80 (Box)	80.0	15.2	1.05	7.3	13.9	0.[illegible]
Newport Menthol 80 (Box)	79.5	15.5	1.12	7.3	14.1	0.43
Triumph Menthol 85	83.9	3.7	0.34	6.8	5.3	0.25
PLAYERS LIGHTS MENTHOL 85 25'S	83.8	9.8	0.76	8.5	9.9	0.55
PLAYERS MENTHOL 85 (BOX)	83.2	11.0	0.84	8.1	12.1	0.59
Richland Menthol 85 25's	83.4	14.9	0.97	7.1	14.3	0.50
Newport Menthol 85 25's	84.3	15.7	1.14	7.9	15.8	0.47
Carlton Menthol 100 (Box)	98.4	1.6	0.14	8.3	1.3	0.23
Carlton Menthol 100	99.4	3.2	0.27	7.2	5.8	0.32
Triumph Menthol 100	98.9	5.7	0.47	8.1	6.9	0.37
Newport Lights Men. 100 (Box)	99.3	8.7	0.79	9.0	8.8	0.37
Lucky Strike Menthol 100	99.5	11.0	0.89	9.9	11.3	0.70
Eve Slim Lights Men. 100 (Box)	97.6	11.4	0.95	7.8	9.5	0.41
Ritz Menthol 100 (Box)	98.4	11.5	0.83	9.5	11.1	0.67
Players Lights Men. 100 25's	99.7	11.5	0.87	10.4	13.0	0.59
Silva Thins Menthol 100	98.4	11.8	0.96	9.7	10.3	0.41
Kool Milds Menthol 100	98.9	12.1	0.95	9.0	12.6	0.49
Kent Menthol 100	99.0	13.2	0.98	9.1	13.9	0.41
PLAYERS MENTHOL 100 (BOX)	98.6	13.8	1.01	9.3	12.1	0.69
St. Moritz Menthol 85	99.7	14.8	1.02	8.6	14.0	0.40
B & H (BOX)	98.6	15.6	1.12	10.6	14.9	0.71
P.M. INTER. MEN. 100 (BOX)	98.4	15.8	1.17	10.4	15.5	0.71
Newport 100 (Box)	99.3	17.3	1.29	8.6	17.3	0.47
Newport Menthol 100 25's	98.9	17.7	1.29	8.6	17.3	0.47
Spring Menthol 100	99.0	18.0	1.32	8.7	18.4	0.50
Eve Lights Menthol 120 (Box)	120.1	12.9	1.12	13.4	11.3	0.65
Max Menthol 120	119.6	15.8	1.20	9.9	15.8	0.52
Tall Menthol 120	119.8	17.8	1.52	15.8	16.5	0.71
NON-FILTER					
Chesterfield	68.8	16.9	1.10	6.7	9.8	-
PLAYERS (BOX)	70.2	23.2	1.63	8.4	12.6	-
Raleigh (NF)	83.8	22.4	1.31	8.4	13.7	-
Old Gold	84.4	22.7	1.56	8.8	15.8	-
ENGLISH OVALS (BOX)	84.4	22.8	1.80	10.3	12.3	-
H. Tareyton	83.6	23.0	1.52	9.0	15.3	-

Filter Type: CA = Cellulose Acetate, C = Carbon

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MINOR BRANDS

Total RTD, mm of H_2O	Ventilation, %	Circumference, mm	Permeability, ml/cm² x min.	Color	Tipping Paper Length, mm	Filter Length, mm	
63	None	25.0	24	Cork	11.0	-	
105	32	24.9	28	Cork	30.0	24.9	CA
118	None	25.0	32	Cork	23.0	18.9	CA
120	None	24.9	18	Cork	25.0	21.0	CA
105	59	25.0	27	Cork	32.0	25.0	CA/CA
119	26	25.0	46	White	31.0	26.9	CA
113	23	25.0	22	Cork	32.0	27.0	CA
117	None	24.9	27	Cork	26.0	21.1	CA
122	None	24.9	18	Cork	25.0	21.0	CA
95	79	24.4	45	White	35.0	26.6	CA
106	62	24.4	29	White	32.0	26.7	CA
126	48	25.0	28	Cork	34.0	26.8	CA
100	44	25.0	29	Cork	34.0	26.8	CA
123	31	24.6	50	Cork	32.0	27.0	CA
118	None	22.7	208*	White	35.0	29.8	CA
124	28	24.2	37	White	35.0	30.9	CA
124	29	24.9	27	White	36.0	31.5	CA
116	32	23.0	25	White	36.0	31.9	CA
118	21	24.9	23	Cork	36.0	29.6	CA
126	13	24.9	36	White	34.0	26.8	CA
103	22	24.4	41	Cork	36.0	31.3	CA
104	None	25.1	173*	White	32.0	27.1	CA
120	15	24.8	48	White	32.0	27.4	CA
116	14	24.9	33	Cork	32.0	27.5	CA
125	None	24.9	18	Cork	34.0	26.9	CA
123	None	24.9	19	Cork	34.0	27.1	CA
124	None	25.0	18	Cork	34.0	26.9	CA
107	55	21.2	10	White	35.0	29.9	CA
146	17	21.9	18	White	35.0	29.7	CA
128	37	22.4	15	White	35.0	29.8	CA
69	-	24.9	47	-	-	-	-
90	-	24.9	26	-	-	-	-
74	-	24.9	23	-	-	-	-
83	-	25.0	19	-	-	-	-
108	-	25.2	43	-	-	-	-
91	-	25.0	26	-	-	-	-

*These cigarette papers are perforated.

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COUPON BRANDS

Two companies utilize coupons on their brands.

BROWN & WILLIAMSON[1]

- Belair (85 & 100)
- Raleigh Filter (85 & 100)
- Raleigh Nonfilter (85)
- Raleigh Lights (85 & 100)

LIGGETT GROUP

- Chesterfield Nonfilter (70 & 85)
- Chesterfield Filter 85

Philip Morris, American, Lorillard and Reynolds do not use coupons on any of their brands.

[1]These brands contain 2 coupons per pack and 8 coupons in the carton.

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PLEASE NOTE

THE APPENDIX SECTION WHICH INCLUDES THE SUMMARY OF BRAND CHANGES, THE DESCRIPTION OF DATA REPORTED, AND EXPERIMENTAL PROCEDURES HAS BEEN UPDATED IN THIS REPORT.

PLEASE RETAIN THIS COPY FOR A REFERENCE AS THESE SECTIONS WILL NOT BE INCLUDED AGAIN UNTIL JANUARY, 1991. THIS WILL SAVE A CONSIDERABLE AMOUNT OF PAPER AND EFFORT BY NOT INCLUDING THE APPENDIX SECTION IN EACH MONTH'S REPORT.

THE SUMMARY OF COMPETITIVE BRAND CHANGES IS ARRANGED ALPHABETICALLY BY COMPANY. ALSO, THE BRANDS ARE LISTED ALPHABETICALLY FOR YOUR CONVENIENCE IN LOCATING A SPECIFIC BRAND.

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APPENDIX

SUMMARY OF COMPETITIVE BRAND CHANGES OBSERVED SINCE APRIL 1969

A. AMERICAN BRANDS

AMERICAN BRAND 80

85 mm - Test marketed in soft pack (85 mm) - No unusual characteristics.

Discontinued.

AMERICAN BRAND 85

85 mm - Test marketed in soft pack (85 mm) - No unusual characteristics. 4/71

Discontinued.

AMERICAN FILTERS 85

Test marketed in Illinois - This value entry brand delivers 16 mg tar and 1.1 mg nicotine - packaged in a red pack. 5/89

AMERICAN FILTERS 100

Test marketed in Illinios - This value entry brand delivers 16 mg tar and 1.1 mg nicotine - packaged in a red pack. 5/89

AMERICAN LIGHTS 85

Test marketed in St. Louis, Missouri. Delivers 12 mg tar and 0.9 mg nicotine. This is a value entry product. 9/88

AMERICAN LIGHTS 100

Test marketed in St. Louis, Missouri. Delivers 11 mg tar and 0.9 mg nicotine. This is a value entry product. 9/88

AMERICAN LIGHTS 100 MENTHOL

Distributed in Virginia - delivers 11 mg tar, 0.9 mg nicotine and 0.6 mg smoke menthol - branded generic. 11/89

AMERICAN LIGHTS 120

Plain - Introduced 120 mm cigarette with a 40 mm CA filter and a tipping paper length of 45 mm - Tar (8 mg) lower than any 120 mm entry to date. 4/76
Discontinued .

AMERICAN LIGHTS MENTHOL 120

Menthol - Introduced 120 mm cigarette with a 40 mm CA filter and a tipping paper length of 45 mm - Tar (9 mg) lower than any 120 mm entry to date. 4/76
Discontinued.

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AMERICAN LONGS 120

Plain - Introduced 120 mm cigarette with a white cigarette paper - 30 mm CA filter - Tar (19 mg) and nicotine (1.[illegible] mg) deliveries.

Discontinued.

AMERICAN LONGS MENTHOL 120

Menthol - Introduced 120 mm cigarette with a white cigarette paper - 30 mm CA filter - Tar (16 mg) and nicotine (1.3 mg) deliveries. 9/75

Discontinued.

AMERICAN OVALS 100

100 mm cigarette with 25 mm CA filter made like a normal cigarette and pressed into its oval shape. 6/69

Discontinued.

BERMUDA 85

Test marketed - king size - 20 mm CA filter, high TPM, low RTD. 5/65

Discontinued.

BRIGHTON 85

Test marketed - king size - dual filtered mentholated - similar to Montclair. 4/65

Discontinued.

BRIGHTON CONVERTIBLE MENTHOL 100

Same as Tennyson Menthol 100 - Introduced in test market. 4/68

Discontinued.

BRIGHTON PINCH MENTHOL 100

Similar to previously introduced Brighton Convertible Menthol 100 and Tennyson Menthol 100. 11/68

Discontinued.

BULL DURHAM 85

Introduced - king size with larger circumference than normal cigarettes - 20 mm CA filter. 6/66

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CARLTON 70

70 mm cigarette with 25 mm CA filter - Tar (0.7 mg) - nicotine (0.15 mg). Data noted on pack "Tar" = 3 mg - Nicotine = 0.3 mg. 1/69

Increased filter ventilation, a more porous cigarette paper and a smaller circumference lowered tar to 1 mg and nicotine to 0.1 mg deliveries. 1/76

Expanded tobacco introduced at 35% level; reconstituted tobacco level decreased (25 to 18%). 9/76

Discontinued.

CARLTON 85

Introduced - king size, dual filter with paper inner filter containing 3 mg of carbon - paper perforated immediately in front of tipping paper - TPM (8 mg), nicotine (0.5 mg) - Package label states: "Tar" = 2.5 mg, Nicotine = 0.4 mg. 1/64

TPM and nicotine reduced by changing to filter ventilation - Package label states: "Tar" = 2.7 mg, Nicotine = 0.3 mg. 5/64

TPM (3 mg) and nicotine (0.2 mg) increased - less efficient filter - Package label states: "Tar" = 3.9 mg and Nicotine = 0.4 mg. 10/64

TPM and nicotine deliveries increased by changing filter ventilation - "Tar" and nicotine data no longer stated on label. 1/65

TPM, nicotine and organic gas phase deliveries increased - Changes observed in total RTD, fiber denier and tobacco weight - Alkaloids increased slightly. 5/65

Total RTD decreased. 4/66

TPM and nicotine decreased - Filter efficiency increased as result of fiber denier changed. 5/66

"Tar" and nicotine data stated on package label. "Tar" = 9.5 mg and nicotine = 0.6 mg. 6/66

TPM and nicotine decreased, 3 mg and 0.1 mg by increasing ventilation. Data on pack changed - "Tar" = 9 mg and nicotine = 0.6 mg. 10/66

Data on pack changed - "Tar" = 7 mg and Nicotine = 0.5 mg. 4/67

Tar (2 mg) and nicotine (0.2 mg) decreased by increase in filter ventilation. 10/67

Tar (1 mg) and nicotine (0.1 mg) increased by changes in fiber shape and fiber denier. 12/67

A model of Carlton with 25 mm CA filter introduced with tar of 2.0 mg. 2/69

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CARLTON 85 (cont.)

Filter change from 20 mm dual filter to 25 mm C...	7/69
Tar (4 to 1 mg) and nicotine (0.4 to 0.2 mg) reduced by increased filter ventilation and lowering tobacco weight - Expanded tobacco content increased from 0 to 42%.	2/76

CARLTON 85 (BOX)

Cigarettes packaged in a flip top box to replace the 70 mm Carlton cigarettes already on the market. Similar to Carlton 85 soft pack cigarettes. Tar (1 mg) and nicotine (0.1 mg) listed on pack.	1/77
Tar (<1.0 to <0.01 mg) and nicotine (0.1 to 0.002 mg) data listed on pack changed as indicated.	3/81
Ventilation was changed from four to six rows of laser perforation. Paper porosity changed from 14 to 7 sec. Both tar and nicotine deliveries of these cigarettes remains at 0.00 mg.	8/81
Name changed to Ultra Carlton.	7/88

CARLTON MENTHOL 85

Introduced - Mentholated version of Carlton 85 plain.	1/72
Tar (4 to 1 mg) and nicotine (0.4 to 0.1 mg) reduced by increased filter ventilation and lowering tobacco weight - Expanded tobacco content increased from 0 to 45%.	2/76
New package graphics.	7/88

CARLTON 100'S

National distribution - low tar (6 mg) and nicotine (0.5 mg) achieved by a 27 mm CA filter containing ventilation (52%). A low tobacco weight and rod density resulted from high ET content (35%). Tar (5 mg) and nicotine (0.5 mg) listed on pack.	4/77
Lower tar (5.9 to 4.4 mg) and nicotine (0.5 to 0.4 mg) deliveries resulted from a change to a more porous cigarette paper.	11/77
Lower tar (5 mg), nicotine (0.4 mg) and CO (5 mg) deliveries resulting from higher ventilation - lower total RTD.	1/86
New package graphics.	7/88

CARLTON 100 (BOX)

Introduced - Tar (0.8 mg) and nicotine (0.08 mg) - Ultra low delivery result of high filter ventilation (84%).	4/80
New package graphics.	7/88

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CARLTON MENTHOL 100 (Box)

Introduced in Texas - Tar (1.0 mg) and nicotine (0.1 mg) similar to Carlton 100 (Box).	1/82
National distribution.	7/85
New package graphics.	7/88

CARLTON MENTHOL 100

Introduced on test market - Low delivery (4 mg tar and 0.4 mg nicotine) mentholated cigarettes similar to Carlton 100 cigarettes previously introduced. Blend contains 33% ET.	11/77
New package graphics.	7/88

CARLTON SLIMS DELUXE 100 (BOX)

National distribution-delivers 7 mg tar and 0.6 mg nicotine.	1/84

CARLTON SLIMS DELUXE MENTHOL 100 (BOX)

National distribution-delivers 7 mg tar and 0.6 mg nicotine.	1/84

CARLTON 120

Introduced - test market - Tar (7.2 mg) and nicotine (0.61 mg). The blend contains 34% expanded tobacco - ventilation system consists of two rows of laser perforation.	7/81
New package graphics.	7/88

CARLTON MENTHOL 120

Introduced - test market - Tar (6.4 mg) and nicotine (0.59 mg). The ventilation system consists of two rows of laser perforation.	8/81
Tar (5.9 to 7.4 mg), nicotine (0.57 to 0.77 mg), and CO (4.5 to 6.6 mg) increased - ventilation (37 to 28%) decreased.	11/82
New package graphics.	7/88

COLD HARBOR 85

Introduced - king size in soft pack - similar to Waterford with menthol added to filler.	6/66
Discontinued.	

COLONY FILTER 85

Introduced - One of the first American Tobacco brands with coupons - 20 mm CA filter.	9/66
Discontinued.	

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COLONY MENTHOL 85

Introduced - One of the first American Tobacco Brands coupons - 20 mm CA filter. 9/66

Discontinued.

COLONY FILTER 100

Introduced - 100 mm cigarette with 20 mm CA filter. 1/67

Discontinued.

COLONY MENTHOL 100

Introduced - 100 mm cigarette with 20 mm CA filter. 5/67

Discontinued.

COMPASS 85

Test marketed - king size mentholated - 20 mm CA filter. 6/65

Discontinued.

DOUBLE EIGHT 88

Double Eight, 88 mm long, replaced Pall Mall 88 on the market - Packaged in a black and white striped pack. 7/68

Discontinued.

FIFTY-FIFTY 100

Introduced - 100 mm cigarette with 45 mm CA filter. 2/67

Tar (5 mg) and nicotine (0.2 mg) increased by changes in cigarette paper. 10/67

Discontinued.

FRESH CONVERTIBLES 100

Similar to Tennyson Convertible Menthol 100, plug-space-plug filter, with capsules containing menthol and carbon granules in space. 9/69

Discontinued.

H. TAREYTON 85 (NF)

Removed from C.I. tables. History of brand in C.I. 5/64. 11/63

Chloride type paper component used. 4/63

TPM and nicotine deliveries reduced. 6/63

TPM reduced by 4 mg as a result of changes in paper porosity, paper component and fiber denier. 3/64

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HALF & HALF 85

Introduced - king size in soft pack with "pipe tobacco blend". 6/74

ICEBERG 10 MENTHOL 85

Low delivery (10 mg tar and 0.8 mg nicotine) with new Filtrona filter - Mentholated cigarette. Blend contains expanded tobacco (4%) and expanded RKS (3%). 5/72

Discontinued.

ICEBERG MENTHOL 100

Test marketed - 100 mm mentholated cigarette with a 30 mm "Filtrona-type" filter similar to the one used on Lucky Ten 100. Blend contains expanded tobacco and stems. 2/74

Cigarette re-engineered - Tar (10 to 5 mg) and nicotine (0.7 to 0.3 mg) decreased. Filtrona-type filter replaced by standard CA filter with 47% ventilation. 7/76

LTC 85

LTC (low tar cigarette) - similar to Lucky Ten in all characteristics. 8/71

Discontinued.

LONG JOHNS 120

Introduced 120 mm cigarette with brown paper colored with azo dyes. Circumference 22.5 mm. Tar (20 mg) and nicotine (1.7 mg) deliveries. 5/75

Discontinued.

LONG JOHNS MENTHOL 120

Introduced 120 mm menthol cigarette with brown paper colored with azo dyes. Circumference 22.5 mm. Tar (17 mg) and nicotine (1.4 mg) deliveries. 5/75

Discontinued.

LUCKY 100'S

Introduced - Similar to previously marketed Lucky Ten 100 - 30 mm "Filtrona" filter. 6/74

Cigarette re-engineered - Tar (10 to 5 mg) and nicotine (0.8 to 0.4 mg) decreased. Filtrona-type filter replaced by standard CA filter with 47% ventilation. 7/76

Discontinued.

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LUCKY FILTERS 100

Introduced - 100 mm cigarette with a 20 mm dual filter, 10 mm crimped tobacco with carbon and 10 mm CA filter. 3/67

Filter length (20 to 25 mm) increased, tar lower by 1 mg. 1/68

Name changed - Lucky Strike 100 to Lucky Filters 100. 6/68

Coupon added to pack. 8/69

Filter change from 25 mm dual filter to 25 mm CA filter, cigarette paper porosity change (12 to 21 seconds), tar (1 mg) and nicotine (0.1 mg) increased. 9/69

Reconstituted tobacco decreased (20 to 15%). 10/69

Discontinued.

LUCKY FILTERS (POLYMER) - 85

85 mm version of Lucky Filters, with a new polymer filter, was introduced. The twenty-five (25) mm filter consists of a CA-space-CA (10-5-10) with the space containing approximately 100 mg of polyethylene and alumina. 9/68

Discontinued.

LUCKY FILTERS (POLYMER) - 100

100 mm version of Lucky Filters, with a new polymer filter, was introduced. The twenty-five (25) mm filter consists of a CA-space-CA (10-5-10) with the space containing approximately 100 mg of polyethylene and alumina. 9/68

Discontinued.

LUCKY STRIKE 70 (NF)

Paper porosity and paper component increased - TPM reduced by 5 mg. 1/62

TPM increased by 2 mg. 7/62

TPM increased by 1 mg. 12/62

TPM decreased by 1.5 mg. 6/63

TPM decreased by 2 mg by changing paper component and porosity. 5/64

Reconstituted tobacco content increased (7 to 11%). 4/66

Circumference and tobacco weight decreased. 9/66

TPM and nicotine increased, 6 mg and 0.2 mg respectively, by changing paper component, citrate to phosphate, and decreasing paper porosity. 10/66

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LUCKY STRIKE 70 (NF) (cont.)

Reconstituted material increased 9 to 12%.	9/68
Reconstituted material increased 12 to 17%.	0/70
Expanded tobacco added to blend (4%).	
Expanded tobacco increased 4 to 6%.	74
Lower tar (1 mg) and nicotine (0.1 mg) correlating with a lower filler rod TPM.	1/75
Tar delivery (27 to 25 mg) decreased by increase in paper porosity.	2/76

LUCKY STRIKE FILTER 80

Plain - Test marketed in a soft pack - First 80 mm cigarette in a soft pack in the U.S. - High tar (26 mg) and nicotine (1.6 mg) correlating with a low filtration efficiency.	12/75
Discontinued.	

LUCKY STRIKE FILTER 85

Test marketed - king size triple filter (CA; carbon on CA; CA) - filter has gas phase activity.	8/64
Test marketed with 20 mm CA filter - high TPM.	11/64
TPM (2 mg) and nicotine (0.1 mg) decreased by increase in filter efficiency.	11/66
TPM (2 mg) and nicotine (0.1 mg) decreased by increase in paper porosity.	12/66
TPM reduced by a filter change from single CA to dual filter - Dual filter consisted of inner filter made from crimped tobacco sheet with embedded carbon and an outer CA filter.	9/67
Change from 20 mm dual filter to 20 mm CA filter.	8/69
Reconstituted tobacco increase (14 to 18%).	4/70
Tar (3 mg) and nicotine (0.3 mg) increased as result of blend change.	5/70
Discontinued.	12/71

LUCKY STRIKE 85

Introduced - test market - delivers 11.6 mg tar and 0.94 mg nicotine. The cigarette length is 83 mm. American Brands has no other 85 mm cigarette in the 10-12 mg tar category.	11/81
Expanded stems removed and reconstituted tobacco increased (20%) in blend - no changes in smoke deliveries.	5/86

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LUCKY STRIKE 85 (BOX)

Introduced - test market - delivers 11.2 mg tar and 0.88 mg nicotine. The ventilation consists of one row of laser perforation. The cigarette length is 83 mm. American Brands has no other 85 mm cigarette in the 10-12 mg tar category.

Tar (12 to 13 mg), nicotine (0.9 to 1.0 mg) and CO (12 to 14 mg) deliveries increased as a result of lower ventilation (19 to 14%).

LUCKY STRIKE MENTHOL 85

Introduced - 85 mm mentholated cigarette with 20 mm CA filter.	6/66
Discontinued.	12/68
Re-introduced nationally - delivers 11 mg tar, 0.8 mg nicotine and 0.6 mg smoke menthol.	5/86

LUCKY STRIKE 100

Introduced in February 1984 delivers 11 mg tar and 1 mg nicotine.	3/84

LUCKY STRIKE MENTHOL 100

Introduced - 100 mm mentholated cigarette with 20 mm CA filter.	4/67
TPM (2 mg) and nicotine (0.2 mg) decreased by changing to a more porous paper.	5/67
Filter length (20 to 25 mm) increased, tar lower (1 mg).	7/68
Discontinued.	12/68
Reintroduced-delivers 10 mg tar, 0.8 mg nicotine and 0.8 mg smoke menthol-24 mm circumference.	11/85
National	3/86

LUCKY STRIKE LIGHTS 85

Introduced - deliveries 7 mg tar - has the shortest cigarette length of any king size cigarette in a soft pack.	11/83

LUCKY STRIKE LIGHTS 100

Introduced - delivers 9 mg tar.	11/83

LUCKY TEN 85

Low delivery (10 mg tar and 0.8 mg nicotine) with new Filtrona filter - Blend contains expanded tobacco (5%).	8/71

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LUCKY TEN 85 (cont.)

A decrease in tar (9 to 8 mg) resulting from a change in filters from a 25 mm Filtrona-type filter to a 25 mm standard CA filter containing ventilation (35%). Lower total RTD noted.

Discontinued.

LUCKY TEN 100

Test marketed - 30 mm Filtrona filter with triangular openings at each end and constricted in the middle. 5% expanded tobacco. Tar (9 mg) and nicotine (0.9 mg) listed on pack. 4/73

Discontinued. 12/77

MALIBU 85

National distribution - delivers 17 mg tar and 1.2 mg nicotine. 9/88

MALIBU MENTHOL 85

National distribution - delivers 16 mg tar, 1.2 mg nicotine, and 0.7 mg smoke menthol. 9/88

MALIBU LIGHTS 85

National distribution - delivers 9 mg tar and 0.7 mg nicotine. 9/88

MALIBU 100

Test marketed in New Hampshire, Peoria and Spokane - first value entry - delivers 11 mg tar and 1 mg nicotine. 3/87

MALIBU MENTHOL 100

Test marketed in New Hampshire, Peoria and Spokane - first value entry - delivers 11 mg tar, 1 mg nicotine and 0.6 mg smoke menthol. 3/87

MALIBU LIGHTS 100

Test marketed in New Hampshire, Peoria and Spokane - first value entry - delivers 9 mg tar and 0.8 mg nicotine. 3/87

MALIBU ULTRA LIGHTS 100

Distributed nationally as a branded generic - delivers 6 mg tar and 0.5 mg nicotine - packaged in a yellow pack. 9/89

MARYLAND 100

100 mm cigarette with 100% air-cured tobacco - No RKS or reconstituted material. 3/70

Discontinued. 12/71

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MARYLAND MENTHOL 100

100 mm mentholated cigarette with 100% air-cured tobacco. Contains no reconstituted material or RKS. 10/70

Discontinued.

MERMAID MENTHOL 100

Test marketed - 25 mm CA filter - Blend contains RKS which has been processed to give an expanded appearance. 11/71

Discontinued.

MISTY LIGHTS 100 (BOX)

Test marketed in California and Louisiana - delivers 8 mg tar and 0.7 mg nicotine - will sell for the full price in California and will sell for the generic price in Louisiana. 9/89

MISTY LIGHTS 100 MENTHOL (BOX)

Test marketed in California and Louisiana - delivers 8 mg tar, 0.7 mg nicotine and 0.5 mg smoke menthol - will sell for the full price in California and for the generic price in Louisiana. 9/89

MONTCLAIR 85

Introduced - mentholated dual filter, carbon section - released menthol, which is concentrated there, as TPM is picked up - has no gas phase activity. 3/62

TPM, nicotine, and menthol deliveries increased. 8/62

Paper component identified as chloride type. 4/63

TPM and nicotine deliveries increased by changing filter ventilation - "Tar" and nicotine data no longer stated on label. 1/64

TPM reduced 7 mg as result of a new filter and filter ventilation - Package label states: "Tar" = 5.2 mg, Nicotine = 0.5 mg. 5/64

TPM reduced 5 mg. Nicotine delivery also decreased, RTD increased. TPM reduced 4 mg by changing paper component and porosity. 6/64

Carbon type changed, coconut to coal. 10/64

TPM (4 mg) and nicotine (0.2 mg) increased, less efficient filter - Package label states: "Tar" = 6.9 mg, Nicotine = 0.7 mg. 11/64

Menthol content and delivery increased. 8/65

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MONTCLAIR 85 (cont.)

Menthol content and delivery increased.	7/66
TPM (2 mg) decreased by increasing filter ventilation.	/67
TPM (4 mg) and nicotine (0.2 mg) decreased by changes in filter ventilation, filter efficiency, and paper porosity.	6/67
Coupon added to pack.	9/67
Circumference decreased (25.2 to 24.9 mm); lower tobacco weight noted.	12/68
Reconstituted tobacco content increased (20 to 36%).	4/69
Change from 20 mm dual filter to 20 mm CA filter.	8/69
Reconstituted tobacco decreased (36 to 28%).	10/69
Tar (6 mg) and nicotine (0.5 mg) increased by elimination of filter ventilation, change to less porous paper. Reconstituted tobacco decreased (28 to 19%).	4/70
Reconstituted tobacco increased (19 to 25%).	9/71
Expanded tobacco added to blend (3%) - Higher filler menthol and menthol delivery noted.	2/73
Expanded stems added to blend (12%) and reconstituted material decreased from 17 to 8% - No change in smoke deliveries.	3/73
Expanded tobacco removed from blend. Tar (1 mg) and nicotine (0.1 mg) decreased - Alkaloids and sugars lower.	2/75
Discontinued.	12/75

PALL MALL 85 (NF)

Paper porosity and RTD increased; TPM and nicotine deliveries reduced (3 mg and 0.1 mg).	4/63
Nicotine delivery reduced slightly.	6/63
TPM and nicotine reduction, 6 mg and 0.2 mg respectively, by changing paper component, phosphate to citrate, and increasing paper porosity.	1/64
TPM and nicotine increased, 7 mg and 0.3 mg respectively, by changing paper component, citrate to phosphate, and decreasing paper porosity.	10/66
Reconstituted material increased, 9 to 12%.	4/67
TPM (6 mg) and nicotine (0.2 mg) decreased by changing paper additive and increasing paper porosity.	5/67
Expanded tobacco added to blend (2%).	1/73

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PALL MALL 85 (NF) (25's)

Expanded tobacco increased from 2 to 6%.	1/74
Expanded stems added to blend (3%).	8/74
Lower tar (1 mg) and nicotine (0.1 mg) correlating with a lower filler rod TPM.	1/75
Lower tar (25 to 23 mg) and nicotine (1.5 to 1.4 mg) deliveries resulting from a change to a more porous cigarette paper.	6/?
Cigarette length (84.8 to 83.7 mm) decreased.	8/82
Test marketed in Rhode Island - contains 25 cigarettes per pack - similar to Pall Mall 85 (NF) - 200 cigarettes per carton - cigarettes packed in an 8-9-8 configuration in the pack.	5/85
National Distribution.	5/86

PALL MALL "UNFILTERED" LIGHTS 85 (SP)

Test market - Rhode Island - delivers 14 mg tar, 1 mg nicotine and has a tobacco filter with porous plugwrap and two rows of laser perforation. The tobacco filter blend (24% reconstituted tobacco, 11% expanded stems and 39% expanded tobacco) is different from the blend of the tobacco column.	9/86

PALL MALL 88

Pall Mall cigarettes, 88 mm long, introduced in white pack with gold lettering.	5/68
Discontinued.	

PALL MALL 100

Plain - Test marketed in new air tight hermetically sealed "polyfoil pak."	10/74
Freon expanded tobacco has been added at the 9% level resulting in a lower tobacco weight (0.905 to 0.865 g).	7/81
Ventilation was incorporated (11%) resulting in lower tar (16 to 15 mg), nicotine (1.2 to 1.1 mg) and CO (16 to 13 mg) deliveries.	7/89
Ventilation removed resulting in higher tar (15 to 17 mg), nicotine (1.1 to 1.2 mg) and CO (14 to 15 mg) deliveries.	11/89
Tar (17 to 15 mg), nicotine (1.2 to 1.1 mg) and CO (15 to 13 mg) deliveries decreased as a result of ventilation (none to 9%). A lower tobacco weight (0.883 to 0.834 g) and rod density (0.254 to 0.239 g/cc) resulted from an increase in expanded tobacco (11 to 17%).	3/90

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PALL MALL 100 (cont.)

Name changed to Pall Mall Gold 100 - new package graphics introduced. 10/72

PALL MALL MENTHOL 100

Menthol - Test marketed in new air tight hermetically sealed "polyfoil pak."

Discontinued.

PALL MALL EXTRA MILD 80

Low delivery (9 mg tar and 0.7 mg nicotine) with new Filtrona molded filter - Blend contains expanded tobacco (4%) - Similar to Lucky Ten 85 in most characteristics. 7/72

Discontinued. 12/77

PALL MALL EXTRA LIGHT 85

85 mm cigarette similar to 80 mm version previously introduced in 7/72. 8/72

Tar (6 mg) and nicotine (0.7 mg) decreased - Filtrona filter with no ventilation was replaced by a standard CA filter with 45% ventilation. Tobacco weight and rod density were higher as result of elimination of ET from blend. 6/76

PALL MALL EXTRA LIGHT 85

Brand name changed from Pall Mall Extra Mild 85 to Pall Mall Extra Light 85. No changes in smoking or physical characteristics. Tar delivery listed on pack as "7 mg or Less". 4/78

PALL MALL FILTER 80 (BOX)

Test marketed in hard box (80 mm) - Tar (19 mg) and nicotine (1.2 mg) deliveries. 5/71

Reintroduced - plain - test marketed in a red flip top box similar in color and design to the soft pack used for Pall Mall 85 Nonfilter cigarettes - High tar (24 mg) and nicotine (1.5 mg) deliveries correlating with a low filtration efficiency. 12/75

Discontinued.

PALL MALL FILTER 85

Test marketed in soft pack (85 mm) - Tar (20 mg) and nicotine (1.3 mg) deliveries. 5/71

Reintroduced - plain - test marketed in a red soft pack similar to that used for Pall Mall 85 Nonfilter cigarettes - Filter RTD extremely low resulting in a low filtration efficiency - Tar (25 mg) and nicotine (1.6 mg) deliveries. 10/75

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PALL MALL FILTER 85 (cont.)

Tar (25 to 18 mg) and nicotine (1.6 to 1.2 mg) decreased as result of a longer (17 to 20 mm), more efficient filter. 2/71

PALL MALL FILTER LIGHTS 85

The incorporation of ventilation (14%) and a change to a more porous cigarette paper resulted in lower tar (16 to 13 mg), nicotine (1.2 to 1.0 mg) and CO (16 to 12 mg) deliveries. The pack has been modified by adding a blue banner to the design. 11/68

PALL MALL FILTER 95

Introduced - 95 mm long cigarette in gold crush-proof box with hinge top - 15 mm CA filter. 3/66

Tar (6 mg) and nicotine (0.3 mg) reduced by increasing filter length (15 to 25 mm) and tipping paper (21 to 30 mm). 2/68

Brand discontinued - Replaced with 100 mm size in crush-proof box. 3/71

Discontinued.

PALL MALL FILTER MENTHOL 95

Introduced - 95 mm long in new type package - mentholated - 15 mm CA filter. 11/65

Tipping paper increased (19 to 21 mm). 7/67

Tar (6 mg) and nicotine (0.2 mg) reduced - single package comprised of twin crush-proof boxes - one box contains ten mentholated and the other ten non-mentholated cigarettes. 2/68

Discontinued.

PALL MALL FILTER 100

Test marketed - 100 mm long - Same as Pall Mall nonfilter with 15 mm CA filter. 10/64

TPM (5 mg) and nicotine (0.2 mg) decreased by an increase in filter efficiency. 11/66

Tipping paper increased 19 to 21 mm. 2/67

Reconstituted material increased 9 to 12%. 4/67

TPM (3 mg) decreased by increasing filter length (17 to 20 mm) and by increasing paper porosity. 5/67

Tar (2 mg) and nicotine (0.3 mg) reduced by increases in filter length (20 to 25 mm) and tipping paper (24 to 30 mm). 10/67

Circumference decreased (24.7 to 24.4 mm) and tobacco weight decreased, no change in tar or nicotine. 11/68

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PALL MALL FILTER 100 (cont.)

Tar (1 mg) and nicotine (0.1 mg) reduced by an increase in filter efficiency - High total and filter RTD noted.	3/70
Filter length (25 to 27 mm) and tipping paper (30 to 32 mm) increased - No change in smoke deliveries.	
Addition of 3% ES to blend.	
Discontinued.	
Introduced in Atlanta, Georgia - delivers 14 mg tar and 1 mg nicotine - packaged in a red pack with a blue banner.	5/87

PALL MALL FILTER MENTHOL 100

Introduced - 100 mm mentholated cigarette with 15 mm CA filter.	10/66
Tipping paper increased (19 to 21 mm).	2/67
TPM (2 mg) decreased by increasing filter length (17 to 20 mm) and by increasing paper porosity.	5/67
Tar (2 mg) and nicotine (0.3 mg) reduced by increases in filter length (20 to 25 mm) and tipping paper (24 to 30 mm).	10/67
Tar (1 mg) and nicotine (0.1 mg) reduced by a blend change.	3/68
Circumference decreased (24.9 to 24.6 mm) and tobacco weight decreased, no change in tar and nicotine.	11/68
Tar (1 mg) and nicotine (0.1 mg) increased by changes in blend and heavier tobacco weight; smoke and filler menthol decreased.	10/69
Reconstituted tobacco decreased (22 to 17%).	10/69
Reconstituted tobacco increased (16 to 21%).	10/70
Addition of expanded RKS (11%) and expanded tobacco (3%) to blend - Reconstituted tobacco content reduced (21 to 7%). Alkaloids increased and fiber shape changed from X to Y - shape. Total and filter RTD increased.	5/72
Expanded tobacco removed from blend. Tar (1 mg) and nicotine (0.1 mg) decreased. Alkaloids and sugars lower.	2/75
Discontinued.	

PALL MALL FILTER 100 (BOX)

Plain - This new 100 mm cigarette in a crush-proof box replaces the previously marketed Pall Mall 95 cigarettes in a flat twin pack.	4/7.
Discontinued.	

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PALL MALL FILTER MENTHOL 100 (BOX)

Menthol - This new 100 mm cigarette in a crush-proof b[illegible] replaces the previously marketed Pall Mall 95 cigarettes in a flat twin pack.

Discontinued.

PALL MALL LIGHTS 100'S

Introduced - 100 mm low tar (12 mg) and nicotine (1.0 mg) brand characterized by 27 mm filter with 24% ventilation. Blend contains 8% expanded tobacco and 2% expanded stems.	7/78
Tar (10.6 to 8.1 mg), nicotine (0.9% to 0.74 mg) and CO (10.3 to 7.6 mg) reduced - increase in filter ventilation (28 to 47%) decrease in filter RTD (4.6 to 3.6).	2/81
Tar (8.4 to 10.9 mg), nicotine (0.8 to 1.0 mg) and CO (8 to 10 mg) increased due to reduced ventilation (53 to 36%) - total RTD increased (3.2 to 4.2).	7/83
CO (10 to 12 mg) delivery increased due to decreased filter ventilation (37 to 23%) - higher filter RTD (3.0 to 4.2 in. H20; correlated with higher efficiency (48 to 54%).	1/84
Tar (10.3 to 9.3 mg) and CO (12.1 to 10.4 mg) decreased - ventilation increased (22 to 28%).	9/84

PALL MALL LIGHT MENTHOL 100'S

Introduced - 13 mg tar and 1.1 mg nicotine - Blend contains 12% expanded tobacco and 12% expanded stems. Cigarette has mechanically perforated cigarette paper and no ventilation.	4/79

PINNACLE 85

New 85 mm cigarette with 25 mm geometrically shaped filter similar to that on Vantage (RJR); however, filter is reversed.	9/70

Discontinued.

PINNACLE MENTHOL 85

Test marketed - king size - dual filtered mentholated - tobacco blend markedly different.	4/65

Discontinued.

SAFARI 100

Test marketed - 100 mm cigarette with 25 mm CA filter. New type package - pouch pack with fin seals. Discontinued.	1/73

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SILVA THINS 100

100 mm cigarette with 20 mm CA filter; small circumference (22 mm) and 26% reconstituted material.

Reconstituted tobacco decreased (26 to 13%) and paper porosity increased - No change in smoke deliveries.

Blend changed as indicated by higher alkaloids and a markedly lower reducing sugar - The nicotine delivery (0.1 mg) was increased by this change. 7/69

Expanded stem added to blend at 10% level and reconstituted tobacco content reduced 18 to 11% - Filter changed from 20 mm paper to 25 mm CA. Lower tobacco weight and rod density noted. Tar decreased (2 mg). 2/72

Expanded stem content increased (10 to 16%). 3/73

Lower tar (16 to 12 mg) and nicotine (1.2 to 1.1 mg) deliveries resulting from introduction of filter ventilation (30%). Increases in filter length (25 to 27 mm) and tipping paper length (30 to 32 mm) were also noted. 8/77

The addition of 4% ET - ES increased from 8 to 16% resulting in a lower tobacco weight. 5/82

Tar (11 to 12 mg) and CO (10 to 11 mg) increased as a result of lower ventilation (30 to 20 %). 11/85

SILVA THINS 100 (BOX)

Test marketed - delivers 10 mg tar, 0.8 mg nicotine and has longer filter, longer tipping paper length, larger circumference and less porous cigarette paper than the Soft Pack. 3/86

SILVA THINS MENTHOL 100

100 mm cigarette with small circumference - Similar to Silva Thins Plain in all characteristics except for menthol. 8/68

Blend changed as indicated by higher alkaloids and lower reducing sugars. Filler rod TPM increased (2 mg) and tar delivery increased (1 mg). 9/71

Filter length increased 20 to 25 mm - No change in smoke deliveries. 5/74

Lower tar (15 to 12 mg) and nicotine (1.1 to 1.0 mg) deliveries resulting from introduction of filter ventilation (30%). Increases in filter length (25 to 27 mm) and tipping paper length (30 to 32 mm) were also noted. Introduced expanded stem at 3% level. 8/77

Lower tar (12 to 7 mg) and nicotine (1.0 to 0.8 mg) deliveries correlating with a more efficient filter and a lower filler rod TPM. 5/79

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SILVA THINS MENTHOL 100 (cont.)

Tar (7 to 11 mg) and nicotine (0.8 to 1.0 mg) increased by a decrease in filter ventilation. 1/79

Changed the filter from 27 mm paper to 27 mm CA - Tar (11 to 12 mg) and nicotine (0.9 to 1.1 mg) increased as result of less efficient filter. 1/81

The addition of 4% ET - ES increased from 8 to 16% resulting in a lower tobacco weight. 5/83

Tar (11 to 12 mg) and CO (10 to 11 mg) increased as a result of lower ventilation (30 to 20%)-higher smoke menthol delivery (0.4 to 0.5 mg). 11/85

SILVA THINS MENTHOL 100 (BOX)

Test marketed - delivers 10 mg tar, 0.8 mg nicotine and 0.4 mg smoke menthol and has a longer filter, longer tipping paper length, larger circumference and less porous cigarette paper than the Soft Pack. 3/86

SUPER M MENTHOL 100

Test marketed - 100 mm mentholated cigarette in new air tight hermetically sealed "polyfoil pak" - Same pack as used on Safari 100. 5/74

Discontinued.

SWEET CAPORAL 85

Introduced - king size with 20 mm CA filter. 10/65

Discontinued.

TALL 120

Plain - Introduced 120 mm cigarette with 30 mm CA filter - White stripped cigarette paper - Tar (19 mg) and nicotine (1.4 mg) deliveries. 8/75

Tar (18 to 21 mg), nicotine (1.6 to 1.7 mg), and CO (20 to 21 mg) increased - ventilation reduced (36 to 30%). 9/83

Lower tar (19 to 17 mg), nicotine (1.6 to 1.5 mg) and CO (19 to 17 mg) deliveries resulted from an increased filter ventilation (36 to 45%). A lower puff count (15 to 14) and a lower total RTD (133 to 108 mm) were also observed. 9/89

TALL MENTHOL 120

Menthol - Introduced 120 mm cigarette with 30 mm CA filter - White striped cigarette paper - Tar (19 mg) and nicotine (1.4 mg) deliveries. 8/75

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TALL MENTHOL 120 (cont.)

Tar (18 to 20 mg), nicotine (1.6 to 1.7 mg), and CO (17 to 21 mg) increased - ventilation decreased (38 to 31%). 9/83

TAREYTON 85

Paper component now being used, identified as chloride type. 1/63

TPM reduced by 3 mg - Nicotine delivery decreased by 0.1 mg. Total and filter RTD increased. 6/

TPM and nicotine reduced (4 mg and 0.1 mg) - Change in paper component and porosity. 2/64

Fiber shape changed, I to cloverleaf. 8/64

Fiber denier changed, 5.0 to 4.0. 11/64

Fiber shape changed, cloverleaf to I. 5/65

Reconstituted tobacco content increased (10 to 14%). 10/65

Tipping paper increased 19 to 24 mm, paper porosity increased - TPM unchanged. 2/67

TPM (1 mg) decreased as result of change in filter length - Paper porosity decreased 14 to 20 seconds. 4/67

Reconstituted tobacco decreased 20 to 15%. 10/69

Addition of 3% ES to blend. 4/75

Tar decreased (19 to 17 mg) resulting from a change to a more porous cigarette paper. 7/76

TAREYTON 85

Freon expanded tobacco introduced to the blend at the 9% level resulting in a lower tobacco weight. Change resulted in lower tar (16 to 14 mg) and nicotine (1.2 to 1.0 mg) deliveries. 8/78

Lower tar (15 to 13 mg) correlating with a higher RTD for the inner paper filter. 5/79

TAREYTON LIGHTS 85

Test marketed - an 85 mm low tar (8 mg) and nicotine (0.6 mg) cigarette. 27 mm dual filter with filter ventilation (44%) consisting of 17 mm CA outer filter and 10 mm paper inner filter. Inner filter contains carbon granules. Longest filter of any 85 mm cigarette on the market. 1/77

Tar (7 to 4 mg) and nicotine (0.7 to 0.3 mg) decreased resulting from an increase in filter ventilation and lower tobacco weight. Lower tobacco weight result of the addition of expanded tobacco (32%). 2/80

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TAREYTON LIGHTS 85 (cont.)

Tar (5 to 6 mg), nicotine (0.4 to 0.5 mg) and CO (5 ... increased as a result of decreased ventilation (53 to ... 11/86

TAREYTON MENTHOL 85

Introduced on test market - Low delivery (7 mg tar and 0.6 mg nicotine), mentholated brand similar in most characteristics to Tareyton Lights 85 previously introduced. Contains no charcoal in filter. 2/87

Discontinued.

TAREYTON 100

Introduced - 100 mm 20 mm dual filter.	4/67
TPM (2 mg) decreased as result of changing paper porosity.	5/67
Tar (2 mg) and nicotine (0.2 mg) reduced by increases in filter length (20 to 25 mm) and tipping paper (24 to 30 mm).	10/67
Filter length (20 to 25 mm) increased, no changes in smoke deliveries.	9/68
Tar (2 mg) and nicotine (0.1 mg) increased correlating with a reduction in filter efficiency.	11/70
Tar (2 mg) increased - Higher filler rod TPM and puff count.	12/71
Filter length (25 to 27 mm) and tipping paper (30 to 32 mm) increased. Lower tar (1 mg) noted.	10/73
Addition of 3% ES to blend.	4/75
Tar (19 to 17 mg) and nicotine (1.4 to 1.3 mg) decreased resulting from a change to a more porous cigarette paper.	7/76
Lower tar (17 to 15 mg) and nicotine (1.3 to 1.2 mg) deliveries resulting from decrease in filler rod TPM delivery.	5/78
Freon expanded tobacco introduced to the blend at the 9% level resulting in a lower tobacco weight. Change resulted in lower tar (15 to 13 mg) and nicotine (1.2 to 1.0 mg) deliveries.	8/78

TAREYTON LONG LIGHTS 100

Introduced - 100 mm low tar (8 mg) and nicotine (0.7 mg) cigarette. 27 mm dual filter with filter ventilation (37%) consisting of 17 mm CA outer filter and 10 mm paper inner filter. Inner filter contains carbon granules. Blend contains 7% expanded tobacco.	1/78
Tar (9 to 7 mg) and nicotine (0.8 to 0.7 mg) decreased resulting from an increase in filter ventilation (30 to 47%).	8/79

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TAREYTON ULTRA LOW TAR MENTHOL 85

Test marketed - These new cigarettes deliver 2 mg tar and 0.1 mg nicotine - 25 mm CA filter with 75% ventilation and blend containing 34% expanded tobacco.

Discontinued.

TENNYSON MENTHOL 85

Introduced - king size mentholated - carbon portion of dual filter has no gas phase activity. 9/65

Discontinued.

TENNYSON MENTHOL 100

100 mm mentholated cigarette - menthol contained in gelatin capsules which release menthol when filter is pinched - similar filter to that in Waterford. 10/67

Discontinued.

TWIST 100

Test marketed - 100 mm cigarette with lemon and menthol flavoring. Blend contains 10% expanded stems. 6/73

Discontinued. 12/75

ULTRA CARLTON

Name changed from Carlton 85 (Box) - new package graphics. 7/88

WATERFORD 80

Introduced - long size in crush proof box - novel filter containing two types of capsules in addition to charcoal - One of the capsule types contains water. 9/65

Discontinued. 12/66

WATERFORD 85

Introduced - king size in soft pack - novel filter contains only one type capsule containing water - Charcoal also present. 2/66

Discontinued.

WHITE LEAF 85

Test marketed - 85 mm filter cigarette with bleached all tobacco wrapper instead of cigarette paper. 6/67

Discontinued.

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B. BROWN AND WILLIAMSON TOBACCO COMPANY

ARCTIC LIGHTS 85

Test marketed - 85 mm cigarette delivering 9 mg tar and 0.7 mg nicotine. High alkaloid blend containing 14% expanded stems - 25 mm CA filter with 33% ventilation.

Discontinued.

ARCTIC LIGHTS 100

Test marketed - 100 mm cigarette delivering 10 mg tar and 0.8 mg nicotine. High alkaloid blend containing 14% expanded stems - 27 mm CA filter with 39% ventilation. 9/78

Discontinued.

AVALON 85

Introduced - test market - king size, triple filter, in soft pack. 7/63

Discontinued. 12/64

BARCLAY 80 (BOX)

Test marketed - ultra low tar (3.2 mg) - 27 mm CA filter containing 64% ventilation-blend contains 11% reconstituted tobacco, 18% expanded tobacco and 11% expanded stems. 10/80

Tar (3.0 to 1.3 mg), nicotine (0.17 to 0.08 mg) and CO (3.0 to 1.2 mg) reduced as result of increase in filter ventilation (66 to 84%) - rows of (MP) holes increased (2 to 3) - elimination of reconstituted tobacco, expanded stems - increase in expanded tobacco (17 to 36%) - lower tobacco weight (0.582 to 0.520 g) - increase in total alkaloids (1.71 to 2.67%). 2/81

Reconstituted tobacco (19%) and expanded stems (5%) added to blend - expanded tobacco decreased (32 to 10%) - tobacco weight (0.533 to 0.628 g) and rod density (0.203 to 0.240 g/cc) increased. 1/85

BARCLAY ULTRA LIGHTS 80 (BOX)

Introduced in Wichita, Kansas - delivers 1 mg tar and 0.1 mg nicotine - utilizes the same filter as the Barclay 80 - similar to Barclay 80 in most characteristics. 11/84

Discontinued.

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BARCLAY 85

Test marketed - ultra low tar (2.5 mg) - 27 mm CA filter with 77% filter ventilation-blend contains 32% expanded tobacco and no reconstituted tobacco or expanded stems.

Reconstituted tobacco (19%) and expanded stems (5%) added to blend - expanded tobacco decreased (32 to 10%) - tobacco weight (0.550 to 0.678 g) and rod density (0.194 to 0.240 g/cc) increased. 1/85

Test marketed version of Barclay 85 with three rows of micro-mechanical perforation and one row of Hauni laser perforation and an Actron filter (manufactured by American Filtrona) that uses cellulose acetate as the plugwrap. 1/86

National distribution with filter design introduced in January, 1986. 5/86

BARCLAY MENTHOL 85

Introduced - nationally - 85 mm mentholated cigarette. Tar (1.4 mg) and nicotine (0.11 mg) - filter ventilation is achieved by a system of mechanical perforation and four longitudinal grooves along the filter. These cigarettes are similar in most characteristics to Barclay 85. 7/81

Uses cellulose acetate film as the plugwrap - filter manufactured by American Filtrona 9/85

Discontinued. 7/87

BARCLAY ULTRA LIGHTS 85

Introduced in Wichita, Kansas - delivers 1 mg tar and 0.1 mg nicotine - utilizes the same filter as the Barclay 85 - similar to Barclay 85 in most characteristics. 11/84

Discontinued.

BARCLAY 100

Test marketed - ultra low tar (3.5 mg) - 27 mm CA filter with 69% filter ventilation - blend contains 26% expanded tobacco, 6% reconstituted tobacco and 12% expanded stems. 9/80

Introduced nationally. 7/81

Decreased the amount of expanded tobacco (25 to 12%) and increased the amount of reconstituted material (7 to 17%) - increased tobacco weight and rod density. 7/85

Tar (3 to 5 mg) nicotine (0.3 to 0.4 mg) and CO (2 to 3 mg) increased - lower ventilation (76 to 69%). 11/85

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BARCLAY 100 (continued)

Test marketed version of Barclay 100 with two rows of micro-mechanical perforation and one row of Hauni laser perforation and an Actron filter (manufactured by American Filtrona) that uses cellulose acetate as the plugwrap.

National distribution with filter design introduced in January, 1986.

BARCLAY MENTHOL 100

Introduced - nationally - 100 mm mentholated cigarette. Tar (3.4 mg) and nicotine (0.28 mg) - filter ventilation is achieved by a system of mechanical perforation and four longitudinal grooves along the filter. These cigarettes are similar in most characteristics to Barclay 100. 7/81

Uses cellulose acetate film as the plugwrap - filter manufactured by American Filtrona. 9/85

Discontinued. 7/87

BARCLAY LIGHTS ULTRA THINS 100 (BOX)

Test market - Atlanta, Georgia - delivers 9 mg tar, 0.7 mg nicotine - 17 mm circumference. 11/87

BARCLAY LIGHTS ULTRA THINS MENTHOL 100 (BOX)

Test market - Atlanta Georgia - delivers 9 mg tar, 0.7 mg nicotine, and 0.7 mg smoke menthol - 17 mm circumference. 11/87

BARCLAY ULTRA LIGHTS 100

Introduced in Wichita, Kansas - delivers 4 mg tar and 0.4 mg nicotine - utilizes the same filter as the Barclay 100 - similar to Barclay 100 in most characteristics. 11/84

Discontinued.

BELAIR 85

Introduced - king size recessed filter, mentholated. 6/60

Lighter filter. 6/62

Flush-type filter. 6/62

TPM reduced, and paper porosity increased - Carbowax (5%) observed in the filter. 12/63

Filler alkaloids increased resulting in higher nicotine delivery. 1/64

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BELAIR 85 (continued)

Change in paper component, phosphate to citrate.	3/64
TPM reduced (2 mg).	8/64
Filler change reduced nicotine delivery by reducing total alkaloids.	
Fiber shape changed from cloverleaf to X-shape.	
TPM (1 mg) increased.	9/66
TPM (4 mg), nicotine (0.2 mg), and menthol in smoke (0.1 mg) decreased as result of change in paper porosity.	1/67
TPM (2 mg) decreased as result of blend change.	8/67
Tar (2 mg) reduced by increase in filter efficiency; fiber shape changed X to Y-shape.	3/68
Tar (1 mg), nicotine (0.2 mg), and menthol (0.5 mg) deliveries were reduced by changes in filter length (20 to 21 mm) and tipping paper (24 to 25 mm).	7/68
Reconstituted tobacco (7 to 11%) and RKS (12 to 16%) increased.	4/70
Addition of expanded RKS to blend replacing portion of regular RKS.	2/72
Lower total alkaloids (0.2%) and nicotine delivery (0.2 mg).	5/73
Tipping paper length increased 25 to 26 mm - No other changes.	7/73
Menthol in smoke content increased by increasing filler menthol.	3/76
Filler alkaloids and total reducing sugars were lower. Nicotine delivery reduced by 0.1 mg.	5/76
Lower tar delivery (15 to 13 mg) resulting from a change to a more porous, mechanically perforated cigarette paper.	8/77
Lower tar (13 to 12 mg) due to decrease in filler rod TPM delivery.	5/78
The addition of expanded tobacco at the 6% level was observed. This change resulted in lower tobacco weight and rod density and an increase in total RTD.	10/78
Lower tar (12 to 8 mg) and nicotine (0.9 to 0.8 mg) deliveries resulting from the introduction of filter ventilation (26%) and an increase in tipping paper length.	1/79

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BELAIR 85 (cont.)

Tar (9 to 10 mg), nicotine (0.76 to 0.82 mg) and filler rod TPM (26.3 to 29.8 mg) increased resulting from change to more porous paper (7 to 15 sec.) with lower level of paper as component (0.6 to 0.2%) - decreased total and filter RTD. 2/84

Increased filter and tipping lengths - lower tobacco weight resulted - no changes in smoke deliveries.

Test marketed in Illinios as a branded generic. This cigarette is packaged in a green and white pack and delivers 15 mg tar, 1.2 mg nicotine and 0.6 mg smoke menthol. 2/89

BELAIR 100

100 mm cigarette with 25 mm CA filter - Similar to Kool 100.	9/68
Coupon added to pack.	9/69
RKS decreased (17 to 13%).	10/69
Filter fiber shape changed - X-shape to Y-shape.	8/71
Addition of expanded RKS to blend replacing portion of regular RKS.	2/72
Change in filter length (25 to 27 mm) and tipping paper length (30 to 32 mm) - Tar (2 mg) and nicotine (0.1 mg) decreased.	12/72
Lower total alkaloids (0.1%) and nicotine delivery (0.1 mg).	5/73
Menthol in smoke content increased by increasing filler men.	3/76
Lower tar delivery (16 to 14 mg) resulting from a change to a more porous, mechanically perforated cigarette paper.	8/77
Lower tar (14 to 13 mg) due to decrease in filler rod TPM delivery. Lower tobacco weight and rod density were also noted.	5/78
The addition of expanded tobacco at the 6% level was observed. This change resulted in lower tobacco weight and rod density and an increase in total RTD.	10/78
Lower tar (13 to 8 mg) and nicotine (1.0 to 0.7 mg) deliveries resulting from the introduction of filter ventilation (33%) and an increase in tipping paper length (32 to 36 mm). A change to a less porous paper (7 to 12 seconds) and the removal of expanded tobacco in the blend was noted.	1/79

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BELAIR 100 (cont.)

Addition of 10% expanded tobacco resulted in a lower tobacco weight and rod density. Tar (7 to 8 mg) and CO (10 to 11 mg) increased as a result of a decrease in filter ventilation (37 to 24%). 1/80

Expanded tobacco eliminated (10 to 0%) - increase in tobacco weight. 2/81

Tar (10.2 to 8.8 mg), nicotine (0.81 to 0.74) and CO (12.0 to 10.2 mg) decreased - increased ventilation (25 to 34%). 9/83

Tar (9.2 to 7.5 mg), nicotine (0.67 to 0.58 mg), CO (8.0 to 6.6 mg) and menthol (0.38 to 0.32 mg) decreased - increased ventilation (36 to 45%). 5/84

Test marketed in Illinois as a branded generic. This cigarette is packaged in a green and white pack and delivers 15 mg tar, 1.2 mg nicotine and 0.6 mg smoke menthol. 3/89

BELAIR LIGHTS 85

Test marketed in Illinois as a branded generic. This cigarette delivers 10 mg tar, 0.9 mg nicotine and 0.5 mg smoke menthol. 3/89

BELAIR LIGHTS 100

Test marketed in Illinois as a branded generic. This cigarette delivers 10 mg tar, 0.9 mg nicotine and 0.5 mg smoke menthol. 3/89

BREEZE 85

Introduced - test market - king size mentholated, in soft pack - similar to Kool. 5/63

Discontinued.

CAPRI 100 (BOX)

Test marketed in Louisiana - delivers 9 mg tar and 0.7 mg nicotine - has a 17 mm circumference. 1/87

CAPRI 100 MENTHOL (BOX)

Test marketed in Louisiana - delivers 9 mg tar, 0.7 mg nicotine and 0.7 mg smoke menthol - has a 17 mm circumference. 1/87

CAPRI LONGS 100

100 mm mentholated cigarette with 22 mm CA filter - Lower smoke menthol than Kool 100. 9/67

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CAPRI LONGS 100 (cont.)

Filter length (22 to 25 mm) and tipping paper length (27 to 30 mm) increased - Paper porosity changed (21 to 10 seconds) - No change in tar. 11/74

Discontinued.

CAPRI 110

Introduced a new 110 mm cigarette 24.7 mm in circumference. Tar (19 mg) and nicotine (1.5 mg); 30 mm CA filter; 35 mm tipping paper. 3/75

Discontinued. 12/75

CAPRI MENTHOL 110

Introduced a new 110 mm menthol cigarette 24.7 mm in circumference. Tar (19 mg) and nicotine (1.5 mg); 30 mm CA filter; 35 mm tipping paper. 5/75

Discontinued. 12/75

CAPRI 120 (BOX)

Test marketed in New Orleans, LA - delivers 13 mg tar and 0.9 mg nicotine - has a 17 mm circumference. 11/88

CAPRI MENTHOL 120 (BOX)

Test marketed in New Orleans, LA - delivers 12 mg tar, 0.8 mg nicotine and 1 mg smoke menthol - has a 17 mm circumference. 11/88

CHEVRON 85

Introduced - test market - king size filter, in soft pack - similar to Viceroy. 3/63

Discontinued.

CORONET 85 (NF)

Introduced - king size, nonfilter in new aluminum foil wrapper - similar to Raleigh plain end. 10/62

Discontinued.

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DOVER LONGS 100

Introduced - 100 mm cigarette with 22 mm CA filter. 2/67

Tar (4 mg) and nicotine (0.4 mg) reduced by changes in the filter and in the blend. 2/67

Discontinued. 1/68

ELI CUTTER 70 (NF)

Introduced in Sacremento, CA and Denver, CO - delivers 21 mg tar and 1.3 mg nicotine - packed in a black pack. 11/84

Discontinued

ELI CUTTER 80 (BOX)

Introduced in Sacremento, CA and Denver, CO - delivers 15 mg tar and 1 mg nicotine - packed in a black pack - micro-mechanical ventilation system. 11/84

Discontinued.

ELI CUTTER 85

Introduced in Sacramento, CA and Denver, CO - delivers 15 mg tar and 1 mg nicotine - packed in a black pack - micro-mechanical ventilation system. 11/84

Reintroduced in a red package in Oklahoma - delivers 16 mg tar, 1.1 mg nicotine. 9/86

ELI CUTTER LIGHTS 85

Test marketed in Oklahoma - packaged in a beige pack. This cigarette delivers 11 mg tar and 0.9 mg nicotine. This brand contains a new type of reconstituted tobacco that is a cast sheet material containing diammonium phosphate. 9/86

FACT 85

Test marketed - CA filter with a pocket in the middle containing yellowish granules identified as Duolite - Tar (14 mg) and nicotine (1.0 mg) deliveries. 7/75

Cigarette paper changed to mechanically perforated with citrate as paper component. Tipping paper increased from 30 to 32 mm. 4/76

Introduction of Hauni ventilation (20%) resulted in lower tar delivery (14 to 11 mg). 7/77

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FACT 85 (cont.)

Re-introduced with new packaging and lower tar [illegible] nicotine (0.7 mg) deliveries. Lower deliveries accomplished using more efficient filter and higher level of ventilation (30%). Continues to utilize "Duolite" granules in filter. 1/77

Discontinued. 7/77

FACT MENTHOL 85

Menthol - test marketed CA filter with a pocket in the middle containing yellowish granules identified as Duolite. Tar (13 mg) and nicotine (0.9 mg) deliveries. Cigarette paper - mechanically perforated with citrate as paper component. 4/76

Introduction of Hauni ventilation (30%) resulted in lower tar delivery (13 to 11 mg). 7/77

Re-introduced with new packaging and lower tar (9 mg) and nicotine (0.7 mg) deliveries. Lower deliveries accomplished using a more efficient filter and higher level of ventilation (30%). Continues to utilize "Duolite" granules in filter. 9/77

Discontinued. 12/77

FIESTA 80 (SOFT PACK)

Test marketed in southern California - manufactured in Mexico - delivers 14 mg tar and 0.6 mg nicotine. 3/85

FLAIR 100

Plain - 100 mm slim cigarette with 27 mm CA filter. 2/70

Discontinued.

FLAIR MENTHOL 100

Menthol - 100 mm slim cigarette with 27 mm CA filter. 2/70

Discontinued.

HALLMARK 85

Plain - New cigarette designed to give uniform smoke deliveries from first puff to last puff - The cigarette paper is coated with sodium chlorate at evenly spaced intervals. 9/70

Discontinued. 12/70

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HALLMARK MENTHOL 85

Menthol - New cigarette designed to give uniform deliveries from first puff to last puff - The cigarette paper is coated with sodium chlorate at evenly spaced intervals. 9/70

Discontinued. 12/70

HALLMARK 100

Introduced - test market - packaged in a slide and shell box with an automatic top opening device and delivers 24 mg tar. Blend contains no reconstituted tobacco or expanded stems; filter contains modified ion exchange resin (Duolite). 7/76

Discontinued.

HALLMARK MENTHOL 100

Introduced - test market - a mentholated version of Hallmark 100 cigarettes. Delivers 23 mg tar. 8/76

Discontinued.

KENTUCKY KING 85

Introduced, king size. "All tobacco filter." 5/60

Phosphate treated paper. 3/61

Increased TPM and nicotine deliveries achieved by slower static burning and increased alkaloids. 2/62

Discontinued. 12/62

KIM SLIMS 100 (BOX) 25'S

Test marketed in Hawaii and Nashville, Tennessee - delivers 9 mg tar and 0.7 mg nicotine - has a 94 mm length. 7/86

KIM SLIMS 100 MENTHOL (BOX) 25'S

Test marketed in Hawaii and Nashville, Tennessee - delivers 9 mg tar, 0.7 mg nicotine and 0.5 mg smoke menthol - has a 94 mm length. 7/86

KOOL 80 (BOX)

Introduced in flip-top box - Similar to Kool 85. 5/74

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KOOL 85

New filter, lower RTD.	1/60
Filter fiber denier and weight decreased, no change in filtration efficiency.	1/61
Filter length increased (17 to 20 mm); higher filter efficiency.	6/62
Carbowax (5%) observed in the filter.	12/63
Filler alkaloids increased resulting in higher nicotine delivery.	2/64
TPM (2 mg) and nicotine deliveries decreased as result of change in paper additive, phosphate to citrate.3/64	
Nicotine delivery decreased by decreasing filler alkaloids.	12/64
Filler alkaloids increased.	4/65
Fiber shape changed from I to Y.	3/66
TPM (1 mg) increased.	6/66
TPM (2 mg), nicotine (0.2 mg), and menthol in smoke (0.1 mg) decreased by increasing paper porosity.	10/66
TPM (2 mg) decreased as result of a blend change.	8/67
Filter length (20 to 21 mm) and tipping paper (24 to 25 mm) increased, no change in smoke deliveries.	4/68
Tar (1 mg) and nicotine (0.1 mg) were reduced correlating with a lower filler rod TPM.	7/68
Menthol in smoke and filler increased.	1/69
Reconstituted tobacco (8 to 12%) and RKS (11 and 15%) increased.	4/70
Addition of expanded RKS to blend replacing portion of regular RKS.	2/72
Tar (0.6 mg) and nicotine (0.05 mg) lower due to faster static burning time.	10/72
Reconstituted tobacco increased 11 to 15%.	5/73
Tipping paper length increased 25 to 26 mm - No other changes.	7/73
Menthol in smoke content increased by increasing filler menthol.	3/76

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KOOL 85 (cont.)

Higher CO (14 to 16 mg) - change to a less porous cigarette paper (14 to 20 sec.) with a higher level of paper components (0.2 to 0.7%)

KOOL 85 25's

Test market - similar to Kool 85 - eight packs in a carton for a total of 200 cigarettes 11/85

Discontinued. 9/86

KOOL INTERNATIONAL MENTHOL 95

Test marketed - This brand is packaged in the princess pack. Tar (10 mg). Ventilation consists of 1 row of Laser perforated holes. This cigarette previously available only in foreign markets. 3/79

Discontinued.

KOOL MILDS 80 (BOX)

Distributed nationally - delivers 11 mg tar, 0.8 mg nicotine and 0.6 mg smoke menthol. 7/96

KOOL MILDS 85

Introduced - Tar (16.5 mg) and nicotine (1.4 mg) - Very similar to Kool 85 except for total alkaloids. Regular and expanded RKS in blend (11%). 4/72

Marketed nationally in July, 1972, with longer filter (21 to 25 mm) and increased tipping paper length (25 to 30 mm). Increase of regular and expanded RKS (11 to 18%). These changes resulted in lower tar (3 mg) and nicotine (0.3 mg). 7/72

Lower total alkaloids (0.3%) and nicotine delivery (0.2 mg). 5/73

Blend change - Lower alkaloids and filler rod TPM resulting in lower tar (2 mg) and nicotine (0.2 mg). Lower puff count and higher RTD noted. 8/74

The addition of expanded tobacco at the 6% level was observed. This change resulted in lower tobacco weight and rod density and an increase in total RTD. 10/78

A lower tar (13 to 11 mg) achieved by introduction of filter ventilation (15%) and a change to a more porous cigarette paper. A blend change indicated by a high filler alkaloid content and lower reducing sugars. 10/79

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KOOL MILDS 85

Expanded tobacco eliminated (11 to 0%) - increase in tobacco weight.	3/81
Freon expanded tobacco has been added (11%) resulting in lower tobacco weight (0.692 to 0.670 g).	7/81
Higher CO delivery correlated with a less porous cigarette paper - longer tipping paper length.	1/86

KOOL MILDS 100

Test marketed - A brand extension of Kool Milds 85. Tar (13 mg) and nicotine (1.2 mg) with 19% ventilation. Blend contains 7% expanded tobacco. Ventilation achieved by a band of electrostatic perforation.	8/79
Expanded tobacco eliminated (11 to 0%) - increase in tobacco weight.	3/81
Freon expanded tobacco has been added (11%) resulting in lower tobacco weight (0.884 to 0.829 g).	7/81
Change to a less porous cigarette paper and an increased ventilation noted - no changes in smoke deliveries.	1/86

KOOL NATURALS 85

Introduced - test market - delivers 14 mg tar. Similar to Fact 85 and Vanguard 85 cigarettes. Filter containing Duolite granules described as an "Actron" filter.	8/76
Discontinued.	

KOOL 100

100 mm mentholated cigarette with 22 mm CA filter.	9/67
Changes in blend, filter length (22 to 25 mm), and tipping paper (27 to 30 mm) did not alter smoke deliveries.	8/68
Menthol in smoke and filter increased.	1/69
Addition of expanded RKS to blend replacing portion of regular RKS.	2/72
Change in filter length (25 to 27 mm) and tipping paper length (30 to 32 mm) - Lower tar (1 mg) and nicotine (0.1 mg).	2/73
Reconstituted tobacco content increased (11 to 15%).	5/73
Menthol in smoke content increased by increasing filler menthol.	3/76

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KOOL 100 (cont.)

Lower tar (18 to 17 mg) resulting from decrease in filler rod TPM delivery. An increase in total RTD was also observed.	
Level of reconstituted tobacco increased from 10 to 16% and level of expanded stems decreased from 17 to 14%.	9/78
Lower tar (16 to 15 mg) and nicotine (1.2 to 1.1 mg) deliveries resulting from a change to a more porous cigarette paper (22 to 12 sec.).	12/78
The addition of 8% expanded tobacco was noted - This change resulted in a lower tobacco weight and rod density.	9/80
Higher tar (14 to 16 mg) and nicotine (0.9 to 1.1 mg) deliveries - increased filler rod TPM, tobacco weight and total alkaloid content - higher smoke menthol (0.4 to 0.5 mg) due to increased menthol in the filler and filter.	11/85

KOOL LIGHTS 85

Name changed from Kool Super Lights 85. Ventilation system changed to two rows of mechanical perforation. These cigarettes are lower in tar (8.6 mg) because of a more efficient filter and higher ventilation level.	9/81
Test marketed in St. Louis, Missouri with new package graphics and white tipping. No changes were noted in smoke deliveries.	1/89

KOOL LIGHTS 100

Name changed from Kool Super Lights 100. Ventilation system changed to two rows of mechanical perforation. These cigarettes are lower in tar (12.3 mg) because of a more efficient filter and higher ventilation level.	9/81
Tar (11 to 10 mg), nicotine (0.9 to 0.8 mg) and CO (10 to 8 mg) decreased due to increased ventilation (28 to 38%).	5/83
Change to a less porous cigarette paper (14 to 21 seconds) was observed - no changes in smoke deliveries.	11/86
Tar, nicotine and CO decreased as a result of increased ventilation and more porous cigarette paper.	7/87
Test marketed in St. Louis, Missouri with new package graphics and white tipping. No changes were noted in smoke deliveries.	1/89

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KOOL SUPER LIGHTS 85

Introduced - 85 mm mentholated cigarette - low tar (9 mg) and nicotine (0.7 mg) resulted primarily from filter ventilation (25%) and low available TPM filler. Mechanically perforated cigarette paper. Typical Brown & Williamson blend. Tar (9 mg) and nicotine (0.8 mg) listed on pack. 7/77

Tar (9 to 6 mg) and nicotine (0.8 to 0.6 mg) deliveries were decreased by increasing the filter ventilation and lowering the tobacco weight. Lower tobacco weight result of addition of 6% expanded tobacco. Paper porosity changed from 7 to 13 seconds. Data listed on pack as tar (7 mg) and nicotine (0.7 mg). 7/79

Discontinued.

KOOL SUPER LIGHTS 100

Introduced - 100 mm mentholated cigarette - low tar (9 mg) and nicotine (0.8 mg) achieved by filter ventilation (35%) and low available TPM filler. Typical Brown & Williamson blend. Tar (9 mg) and nicotine (0.8 mg) listed on pack. 7/77

Addition of 10% expanded tobacco resulted in a lower tobacco weight and rod density. 11/80

Expanded tobacco eliminated (10 to 0%) - increase in tobacco weight - tar and nicotine data printed on packs has been removed. 3/81

Tar (8.1 to 9.4 mg), nicotine (0.65 to 0.72 mg) and CO (9.9 to 12.2 mg) increase - reduced filter ventilation (32 to 24%). 4/81

Discontinued.

KOOL ULTRA 85

Introduced - test market - tar and nicotine deliveries advertised as 2 mg and 0.3 mg, respectively. The filter system is similar to that of the Barclay with mechanical perforation and four longitudinal grooves along the filter. 9/81

Filter changed from "Actron" filter (Barclay-type) to conventional cellulose acetate filter - higher total and filter RTD, lower ventilation and less porous cigarette paper were also noted. Higher smoke deliveries resulted from these changes. Higher smoke menthol correlated with increased filler and filter menthol. 11/86

Filter changed back to "Actron" (Barclay-type) filter. 7/87

Test marketed as Kool Ultra Lights in St. Louis, Missouri with new package graphics and white tipping. No changes

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KOOL ULTRA 100

Introduced - test market - tar and nicotine deliveries 5.7 mg and 0.53 mg, respectively. The filter system similar to that of the Barclay with mechanical perforations and four longitudinal grooves along the filter. 8/81

Filter changed from "Actron" filter (Barclay-type) to conventional cellulose acetate filter - higher total and filter RTD, lower ventilation and less porous cigarette paper were also noted. Higher smoke deliveries resulted from these changes. A longer filter length was observed. 11/86

Filter changed back to "Actron" (Barclay-type) filter. 7/87

Test marketed as Kool Ultra Lights in St. Louis, Missouri with new package graphics and white tipping. No changes were noted in the filter design or smoke deliveries. 1/89

LIFE 85

TPM (7 mg) and nicotine (0.5 mg) increased by decrease in filter efficiency - Filter changed from 25 mm paper to 25 mm CA. 2/66

TPM (5 mg) and nicotine (0.3 mg) decreased as a result of increase in filter efficiency. Filter changed from 25 mm CA to dual filter 12.5 mm CA and 12.5 mm paper. 12/66

TPM (2 mg) decreased as result of increased filter efficiency - Filter changed to an 18 mm/7 mm (paper/CA). 2/67

TPM (4 mg) and nicotine (0.2 mg) increased as result of a change in filter construction 12.5/12.5 mm (paper/CA) which resulted in decrease in filter efficiency. 3/67

Discontinued.

LIFE FILTER 100

Lowest tar delivery of any 100 mm - Dual filter, paper inner plug, and cellulose acetate outer plug - Tar (10 mg) and nicotine (0.8 mg) data are listed on pack. 6/70

Filter changed from 25 mm dual (paper/CA) to 27 mm CA. Total and filter RTD increased. 8/73

Discontinued.

LYME 85

New flavor - lime-menthol product - Tar (14 mg) and nicotine (0.9 mg) low for B & W product. 10/71

Discontinued.

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PHOENIX 120

Plain - Introduced 120 mm cigarette with 30 mm CA filter with a brown cigarette paper containing azo dyes - Circumference 21 mm - Tar (19 mg) and nicotine (1.4 mg) deliveries.

Discontinued.

PHOENIX MENTHOL 120

Menthol - Introduced 120 mm cigarette with 30 mm CA filter with a brown cigarette paper containing azo dyes - Circumference 21 mm - Tar (19 mg) and nicotine (1.4 mg) deliveries. 7/75

Discontinued.

PRINCE 85

Imported by Brown & Williamson from Denmark - manufactured by Scandanavian Tobacco International - delivers 16 mg tar and 1.3 mg nicotine. A high level of expanded stem (24%) was in the blend. 11/88

PRINCE LIGHTS 85

Imported by Brown & Williamson from Denmark - manufactured by Scandanavian Tobacco International - delivers 12 mg tar and 1.0 mg nicotine. A high level of expanded stem (24%) was in the blend. 11/88

RALEIGH 70 (FILTER)

Test marketed in southern California - manufactured in Mexico - delivers 16 mg tar and 0.8 mg nicotine. 3/85

RALEIGH FILTER 85

Lighter filter with same efficiency. 4/61

Carbowax (5%) observed in the filter. 12/63

Filler alkaloids increased resulting in higher nicotine delivery. 1/64

TPM (4 mg) and nicotine (0.2 mg) decreased as result of change in paper component, phosphate to citrate. 6/64

Fiber shape changed from I to Y. 3/66

TPM (2 mg) increased.

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RALEIGH FILTER 85

TPM (2 mg) decreased, paper porosity increased and cigarette length decreased.	
Reconstituted tobacco increased, 6 to 9%.	
Tar (1 mg) reduced by changes to a more porous paper and in tipping paper (24 to 25 mm).	4/68
Filter length increased (20 to 21 mm).	7/68
Reconstituted material increased, 5 to 9%.	9/68
Paper porosity changed (11 to 17 seconds) - No change in tar.	1/69
Tar (2 mg) and nicotine (0.2 mg) decreased, lower alkaloids and tobacco weight observed.	8/69
RKS increased (7 to 18%).	10/69
Addition of expanded RKS to blend replacing portion of regular RKS.	3/72
Tipping paper length increased 25 to 26 mm - No other changes.	7/73
Expanded tobacco eliminated (10 to 0%) - increase in tobacco weight - tar and nicotine data printed on pack has been removed.	3/81
Tobacco weight decreased (0.778 to 0.732 g) due to addition of 4% Freon expanded tobacco to the blend.	11/83
Tar (13.6 to 13.1 mg) and CO (16.5 to 13.8 mg) decreased - change to a more porous cigarette paper (23 to 12 sec.).	1/85
Increased expanded tobacco (4 to 10%) - decreased tobacco weight.	7/85

RALEIGH LIGHTS 85

Introduced - 85 mm version of Raleigh 85 with lower tar (13 mg) and nicotine (0.9 mg). It has 25 mm CA filter and 30 mm tipping paper.	4/73
Brand name changed from Raleigh Extra Milds 85 to Raleigh Lights 85. No other changes were noted.	10/76
Decrease in tar delivery (12 to 10 mg) resulting from introduction of filter ventilation (24%) and a change to a more efficient filter. Changed to a high alkaloid blend and replaced mechanically perforated cigarette paper with inherently porous paper.	4/78

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RALEIGH LIGHTS 85 (cont.)

Tar (9 to 8 mg) and nicotine (0.9 to 0.8 mg) delivered lower correlating with a lower filler rod TPM.	9/85
12% Freon expanded tobacco added to blend.	3/86
Increased amount of reconstituted material and decreased amount of expanded stems - changed to a less porous cigarette paper.	1/88
Tipping paper length increased - lower tar and nicotine deliveries and a lower puff count resulted.	8/78
Expanded tobacco removed from the blend resulting in an increased tobacco weight and rod density.	2/81
Introduced - 100 mm version of Raleigh Lights 85 with 10 mg tar and 0.9 mg nicotine. 27 mm CA filter with 24% ventilation.	5/83
Tar (7.8 to 9.8 mg), nicotine (0.68 to 0.81 mg) and CO (10.7 to 14.4 mg) increased - decrease in filter ventilation (34 to 19%) - higher RTD (4.9 to 5.6).	1/84
Tar (10 to 9 mg), nicotine (0.9 to 0.8 mg) and CO (13 to 11 mg) decreased due to increased ventilation (26 to 32%).	9/85
12% Freon expanded tobacco added to blend resulting in lower tobacco weight (0.892 to .826 g/cc) and rod density (0.251 to 0.230 g/cc). Fiber denier changed (2.6/Y to 3.2/Y) resulting in lower filter RTD (4.1 to 3.3 in. H_2O) - decrease in filtration efficiency (59 to 52%). Tar increased (9 to 10 mg).	11/85
Increased amount of reconstituted material and decreased amount of expanded stems - more efficient filter used.	
Tar (9 to 11 mg) nicotine (0.7 to 0.8 mg) and CO (11 to 13 mg) increased - decreased ventilation (27 to 20%).	

RALEIGH LIGHTS 85

Expanded tobacco removed from the blend. Higher tar, nicotine and CO deliveries resulted; longer filter length was observed (27 to 30 mm).	1/88

RALEIGH 100

100 mm cigarette with 25 mm CA filter.	8/69
Coupon on pack.	9/69
Tar (1 mg) increased correlating with a change in paper porosity (13 to 25 seconds).	3/71

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RALEIGH 100 (cont.)

Addition of expanded RKS to blend replacing a portion of regular RKS.	
Tar (1.5 mg) and nicotine (0.1 mg) lower - Lower tobacco weight and rod density noted.	
Change in filter length (25 to 27 mm) and tipping paper length (30 to 32 mm) - Tar (1 mg) and nicotine (0.1 mg) decreased.	12/72
Lower tar (17 to 16 mg) resulting from decrease in filler rod TPM delivery.	5/78
Addition of expanded tobacco at the 6% level correlating with a lower tobacco weight and rod density. Lower tar (17 to 16 mg) and filler rod TPM deliveries noted.	4/79
Lower tar (16 to 15 mg) and nicotine (1.2 to 1.1 mg) resulting from a change to a more porous cigarette paper.	1/80
Tar (7.8 to 9.8 mg), nicotine (0.68 to 0.81 mg) and CO (10.7 to 14.4 mg) increased - decrease in filter ventilation (34 to 19%) - higher RTD (4.9 to 5.6).	2/81
Expanded tobacco eliminated (10 to 0%) - increase in tobacco weight - tar and nicotine data printed on pack has been removed.	3/81
4% Freon expanded tobacco added to blend resulted in lower tobacco weight (0.886 to 0.831 g) and rod density (0.250 to 0.233 g/cc).	1/84

RICHLAND 85

Introduced - contains 25 cigarettes per pack - delivers 15 mg tar and 1.2 mg nicotine - similar to Viceroy 85.	9/83
National distribution.	6/85

RICHLAND LIGHTS 85

Introduced - contains 25 cigarettes per pack - delivers 11 mg tar and 0.8 mg nicotine.	5/85
National distribution.	6/85
Expanded stems removed from the blend (11% to none) - increased tobacco weight and rod density - higher filler rod TPM correlated with this change.	5/87

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RICHLAND MENTHOL 85

Introduced - contains 25 cigarettes per pack - delivers 15 mg tar, 1.1 mg nicotine, and 0.5 mg menthol - similar to Kool 85. 3/86

National distribution.

Higher CO delivery resulted from less porous cigarette paper with an increased level of paper component.

RICHLAND 100 25'S

Introduced nationally - 250 cigarettes per carton - delivers 16 mg tar and 1.1 mg nicotine. 5/86

RICHLAND LIGHTS 100 25'S

Introduced nationally - 250 cigarettes per carton - delivers 11 mg tar and 0.8 mg nicotine. 5/86

ST. JAMES COURT 85

Introduced in Portland, Oregon; New Orleans, Louisianna; and Phoenix, Arizona - utilizes a dual cellulose acetate filter which consists of a 7 mm formed Filtrona section and a 20 mm "Actron" section - the Actron section contains a 20 mm cellulose acetate tube - the blend is not typical of Brown & Williamson products. 11/84

Test market expanded to Hawaii. 6/85

ST. JAMES COURT MENTHOL 85

Introduced in Portland, Oregon; New Orleans, Louisianna, and Phoenix, Arizona - utilizes a dual cellulose acetate filter which consists of a 7 mm formed Filtrona section and a 20 mm "Actron" section - the "Actron" section contains a 20 mm cellulose acetate tube - the blend is similar to Kool Lights. 11/84

Test market expanded to Hawaii. 6/85

ST. JAMES COURT 100 (BOX)

Introduced in Portland, Oregon; New Orleans, Louisianna; and Phoenix, Arizona - utilizes a dual cellulose acetate filter with a 7 mm formed Filtrona section and a 20 mm "Actron" section - the "Actron" section contains a 20 mm cellulose acetate tube - the blend is not typical of Brown & Williamson products. 11/84

Test market expanded to Hawaii. 6/85

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ST. JAMES COURT MENTHOL 100 (BOX)

Introduced in Portland, Oregon; New Orleans, Louisiana and Phoenix, Arizona - utilizes a dual cellulose acetate filter with a 7 mm formed Filtrona section and a 20 mm Actron section - the "Actron" section contains a 20 mm cellulose acetate tube - the blend is similar to Kool Lights. 11/84

Test market expanded to Hawaii. 6/85

SEVENTY 70

Plain - test marketed with mechanically perforated cigarette paper and 17 mm CA filter - 10 mg tar and 0.7 mg nicotine. 6/76

Discontinued.

SEVENTY MENTHOL 70

Menthol - test marketed with mechanically perforated cigarette paper and 17 mm CA filter - 10 mg tar and 0.7 mg nicotine. 6/76

Discontinued.

SPIRIT 85

Test marketed - 85 mm cigarette delivering 8 mg tar and 0.9 mg nicotine - This new brand has a high efficiency, 25 mm CA filter with 30% ventilation. 10/78

Discontinued.

SPIRIT 100

Test marketed - 100 mm cigarette delivering 9 mg tar and 1.0 mg nicotine - This new brand has a high efficiency, 27 mm CA filter with 27% ventilation. 10/78

Discontinued.

SUEDES 120

Plain - Introduced 120 mm cigarette with 30 mm CA filter with a brown cigarette paper colored with azo dyes - Tar (17 mg) and nicotine (1.2 mg) deliveries - Circumference 21 mm. 9/75

Discontinued.

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SUEDES MENTHOL 120

Menthol - Introduced 120 mm cigarette with 30 mm CA filter with a brown cigarette paper colored with azo dyes (19 mg) and nicotine (1.3 mg) deliveries - Circumference 21 mm.

Discontinued.

TRAMPS 85

Plain - Introduced - Light brown cigarette paper colored with caramelized sugar. Tar (19 mg) and nicotine (1.1 mg) deliveries. 9/74

Introduced with regular cigarette paper. Lower tar and nicotine deliveries than previous sample. 10/74

Tar (19 to 16 mg) and nicotine (1.3 to 1.1 mg) decreased. Filler rod TPM decreased (36 to 31 mg). Smoke deliveries change as result of paper change. 4/75

Discontinued. 12/75

TRAMPS MENTHOL 85

Menthol - Introduced - Light brown cigarette paper colored with caramelized sugar. Tar (19 mg) and nicotine (1.1 mg) deliveries. 9/74

Introduced with regular cigarette paper. Lower tar and nicotine deliveries than previous sample. 10/74

Tar (19 to 17 mg) and nicotine (1.1 to 1.0 mg) decreased. Smoke deliveries change as result of paper change. 4/75

Discontinued. 12/75

TRAMPS 110

Introduced plain 110 mm cigarette with light brown cigarette paper colored with caramelized sugar. Circumference 24.6 mm, 30 mm CA filter, and 35 mm tipping paper. 4/75

Discontinued. 12/75

TRAMPS MENTHOL 110

Introduced menthol 110 mm cigarette with light brown cigarette paper colored with caramelized sugar. Circumference 24.6 mm, 30 mm CA filter, and 35 mm tipping paper. 4/75

Discontinued.

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VANGUARD 85

Introduced - Similar to Fact 85 cigarettes previously introduced - CA filter with pocket in the middle containing yellowish granules identified as Duolite - Tar (14 mg) and nicotine (1.0 mg) deliveries. 7/75

Discontinued.

VANGUARD MENTHOL 85

Introduced - test market - mentholated version of Vanguard 85 - Delivers 14 mg tar. 7/76

Discontinued.

VICEROY 85

"Deep Weave," more efficient filter. 8/60

Lighter, slightly less efficient filter resulted in slight increase in TPM and nicotine delivery. 6/61

Total RTD reduced 20 mm H20 by changes in plug RTD, rod circumference, tobacco weight, and paper porosity. 8/62

Filter contains carbowax (5%). 5/63

Filter length has increased from 17 to 20 mm. 8/63

Filler alkaloids increased resulting in a higher nicotine delivery. 1/64

TPM (3 mg) and nicotine deliveries decreased, a result of a more porous cigarette paper. 2/64

TPM (2 mg) increased. 6/66

TPM (2 mg) decreased as result of blend change. 8/67

TPM (1 mg) reduced by changes to a more porous paper and in tipping paper (24 to 25 mm). 4/68

Reconstituted material increased, 6 to 9%. 9/68

Tar increased (1 mg) - Change in paper porosity (11 to 18 seconds) noted. 5/69

Tar (1 mg) and nicotine (0.1 mg) decreased, amount of paper component in cigarette paper increased. 7/69

RKS increased (11 to 14%). 10/69

RKS increased (13 to 18%). 10/70

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VICEROY 85 (cont.)

Addition of expanded RKS to blend replacing portion of regular RKS.	
Tipping paper length increased 25 to 26 mm - No other changes.	
Package design change - Tar (15 to 17 mg) and nicotine (1.0 to 1.1 mg) deliveries increased. Blend change observed.	6/75
Tar (15.0 mg) and nicotine (1.0 mg) deliveries returned to level prior to package design change.	10/75
Lower tar (16 to 14 mg) and nicotine (1.1 to 1.0 mg) deliveries achieved by change to a more efficient filter. Changes in total and filter RTD and filter fiber denier also noted.	3/78
Addition of expanded tobacco at the 6% level was observed. First time a Brown & Williamson product containing expanded tobacco was obtained from the market. Decrease in tobacco weight along with lower tar (14 to 13 mg) and nicotine (1.0 to 1.9 mg) deliveries resulting from the addition of expanded tobacco.	9/78
Tar increased (13.8 to 14.7 mg) due to decreased filtration efficiency (48 to 40%) and change in fiber denier (3.0 to 3.7).	3/83
Tar (15.5 to 14.2 mg) and CO (16.0 to 14.2 mg) decreased - change to a more porous cigarette paper (23 to 12 sec.).	1/85
Blend change resulted in lower level of expanded stems (13 to 5%) - dark colored reconstituted tobacco was replaced with a light colored reconstituted tobacco. The blend change increased tobacco weight. Higher smoke deliveries and a less porous cigarette paper were noted. Ventilation was added (None to 10%). This cigarette is now being sold at a generic price.	1/89

VICEROY EXTRA MILD 85

Introduced - Very similar to Viceroy Lights 85 previously test marketed by Brown & Williamson.	4/74
Tar (14 to 11 mg) and nicotine (1.0 to 0.8 mg) decreased by the introduction of Hauni ventilation at the 23% level. A decrease in total RTD was also noted.	1/77
Blend change resulting in higher filler rod TPM delivery. Changed to a more efficient filter and discontinued use of mechanically perforated cigarette paper. No change in tar or nicotine deliveries observed. Changed from Hauni ventilation to mechanically perforated tipping paper.	4/78
Discontinued.	12/78

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VICEROY RICH LIGHTS 85

Introduced - Tar (9 mg) and nicotine (0.8 mg) 25 mm CA filter and 36% ventilation. Similar to Viceroy Extra Milds 85 cigarettes. 1/78

12% Freon expanded tobacco added to blend. 5/83

Name changed to Viceroy Lights. 1/85

VICEROY LIGHTS 85

Introduced - Tar (12.5 mg) and nicotine (1.0 mg), 25 mm CA filter - 30 mm tipping paper - Blend contains expanded RKS. 4/72

Increased level of reconstituted material and decreased level of expanded stems - changed to a less porous cigarette paper. 9/85

Tipping paper length increased. 5/86

Increased level of reconstituted material and decreased level of expanded stems - changed to a less porous cigarette paper. 9/85

Expanded stems removed from the blend (11% to none) - increased tobacco weight and rod density - higher filler rod TPM correlated with this change. 5/87

VICEROY 100

100 mm cigarette with 22 mm CA filter. 10/67

Tar (2 mg) and nicotine (0.1 mg) reduced by changes in filter length (22 to 25 mm), tipping paper (27 to 30 mm) and to a more porous paper (20 to 12 seconds). 8/68

Tar (1 mg) increased. Change in paper porosity (11 to 20 seconds) noted. 5/69

Tar (2 mg) and nicotine (0.2 mg) decreased, change in paper porosity (21 to 14 seconds). 6/69

RKS increased (11 to 14%). 10/69

Tar (2 mg) and nicotine (0.1 mg) were reduced correlating to lower filler rod TPM - A decrease in alkaloids and higher reducing sugars were observed - An increase in RKS was noted. 9/70

RKS increased (13 to 18%). 10/70

Tar (1 mg) increased correlating with change in paper porosity (12 to 22 seconds). 3/71

Addition of expanded RKS to blend replacing portion of

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regular RKS.	
Change in filter length (25 to 27 mm) and tipping paper length (30 to 32 mm) - Tar (2 mg) and nicotine (0.2 mg) decreased.	12/74
Package design change. Tar (16 to 17 mg) and nicotine (1.1 to 1.2 mg) deliveries increased. Blend change observed.	6/75
Decrease in tar (18 to 16 mg) and nicotine (1.3 to 1.1 mg) deliveries resulting from a change to a more porous cigarette paper.	11/77
Addition of expanded tobacco at the 7% level correlated with lower tobacco weight and rod density.	5/80
Tar (14 to 16 mg), nicotine (1.0 to 1.1 mg), filler rod TPM (27 to 29 mg) and total alkaloids (1.60 to 1.72%) increased. 9% ventilation added to brand - CO decreased (16 to 14 mg).	3/84
Blend change resulted in lower level of expanded stems (13 to 5%) - dark colored reconstituted tobacco was replaced with a light colored reconstituted tobacco. The blend change increased the tobacco weight. Higher smoke deliveries and a less porous paper were noted. Ventilation increased (8 to 17%). This cigarette is now being sold at a generic price.	1/89

VICEROY RICH LIGHTS 100

Introduced - 100 mm cigarette delivering 8 mg tar and 0.8 mg nicotine. 27 mm CA filter with 40% ventilation. This is a brand extension of Viceroy Rich Lights 85 cigarettes.	9/78
Tar value (8 to 9 mg) changed on pack to comply with FTC Report.	5/82
12% Freon expanded tobacco added to blend.	5/83
Tar (11.5 to 10.2 mg) and CO (11.2 to 9.6 mg) decreased - ventilation increased (20 to 29%).	9/84
Tar (10.2 to 11.6 mg) and CO (9.6 to 11.4 mg) increased - decreased ventilation (29 to 21%).	3/85
Name changed to Viceroy Lights.	7/85

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VICEROY LIGHTS 100

Increased level of reconstituted material - increased level of expanded stems - more efficient filter. 9/85

Filter length increased - lower tobacco weight required - change in fiber denier - no changes in smoke delivered. 8/86

Expanded tobacco removed from the blend resulting in an increased tobacco weight and rod density. 1/88

WINGS FILTER 85

85 mm cigarette - 20 mm CA filter - contains 25% reconstituted material. 3/67

Discontinued. 12/68

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C. LIGGETT GROUP

ADAM 85

Introduced with 20 mm CA filter - Brown colored cigarette paper - paper colored with caramelized sugar.	
Paper component in cigarette paper changed from citrate to phosphate - Tar (3 mg) and nicotine (0.3 mg) deliveries increased by this change. Package also redesigned.	10/72
Discontinued	

ADAM 100

100 mm version of the 85 mm cigarette previously introduced - 25 mm CA filter.	10/72
Discontinued	

CHESTERFIELD 70 (NF)

Paper porosity increased reducing TPM by 4 mg and nicotine delivery by 0.1 mg.	10/62
Alkaloids reduced by 0.1%.	12/62
Tar (22.7 to 19.4 mg), nicotine (1.36 to 1.14 mg) and CO (12.9 to 11.0 mg) reduced - change to more porous cigarette paper (22 to 14 sec.).	2/81
Tar (19 to 18 mg) decreased due to use of perforated porous cigarette paper (7 sec.) with higher level of paper component (0.3 to 1.7%).	1/84

CHESTERFIELD 85 (NF)

Paper porosity increased, reducing TPM by 8 mg and nicotine delivery 0.3 mg.	10/62
RTD increased (3.6 to 3.9 inches of H20).	8/65
TPM (2 mg) and nicotine (0.1 mg) deliveries increased.	12/65
Circumference reduced, resulting in lower tobacco weight.	5/67
Tar (3 mg) reduced by changes in type paper component, phosphate to citrate.	2/68
Coupon added to pack.	4/69
Tar (2 mg) and nicotine (0.1 mg) decreased - Reconstituted tobacco increased (6 to 11%) and RKS added to blend (4%).	9/71

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LIGGETT GROUP

CHESTERFIELD 85 (NF) (cont.)

Addition of expanded RKS to blend replacing a portion of regular RKS.	9/76
Expanded tobacco added to blend (7%) resulting in lower tobacco weight and rod density.	
Expanded stem level increased from 4 to 10%.	
Tar (24.8 to 23.7 mg), nicotine (1.59 to 1.45 mg) and CO (16.0 to 13.5 mg) reduced - change to a more porous cigarette paper (22 to 13 sec.).	1/81
Tar (23.0 to 20.2 mg) and CO (15.4 to 12.4 mg) decreased due to use of perforated cigarette paper that is more porous (14 to 7 sec.) with higher level of paper component (0.4 to 1.4%).	11/83
Tar (20 to 22 mg) and CO (12 to 16 mg) increased due to a change to a less porous paper (7 to 15 sec.) with decreased level of paper component (1.4 to 0.4%).	5/84

CHESTERFIELD LIGHTS 85

Test marketed in St. Louis, Missouri and Peoria, Illinois - delivers 10 mg tar and 0.8 mg nicotine.	11/88

CHESTERFIELD LIGHTS 100

Test marketed in St. Louis, Missouri and Peoria, Illinois - delivers 10 mg tar and 0.8 mg nicotine.	11/88

CHESTERFIELD 101

Test marketed - 101 mm long cigarettes with 20 mm CA filter.	8/67
Tar (2 mg) reduced by increase in tipping paper (24 to 27 mm).	2/68
Tar (3 mg) reduced by changes in blend and to a more porous paper (20 to [illegible] seconds).	7/68
Coupon added to pack.	4/69
Reconstituted tobacco removed from blend (20 to 0%) - RKS increased (5 to 11%).	10/69
Reconstituted tobacco added to blend (0 to 19%) - RKS lowered (11 to 6%) - Tar (3 mg) and nicotine (0.2 mg) decreased.	6/70
Addition of expanded RKS to blend replacing a portion of regular RKS.	3/72

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LIGGETT GROUP

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CHESTERFIELD 101 (cont.)

Filter length (20 to 25 mm) and tipping paper (27 to increased. Fiber denier change - No change in smoke deliveries.	
Expanded tobacco added to blend (7%) resulting in lower tobacco weight and rod density.	
Package changed to be similar to package of Chesterfield nonfilter.	10/74
Fiber shape changed (Y to I).	/75
Tar (1 mg) lowered by increasing filter and tipping paper lengths. Fiber denier changed from 4.5 to 3.5.	1/76
Brand name changed from Chesterfield 101 to Chesterfield Filter Longs; cigarette length decreased (100.5 to 98.6 mm). Lower tar (1 mg) and nicotine (0.2 mg) deliveries were noted. Expanded stem level increased from 4 to 10%.	9/76
Brand name changed back to Chesterfield 101. Cigarette length and smoke deliveries returned to previous level.	11/76
An increase in the filter length (27 to 30 mm) and tipping paper length (32 to 35 mm) resulted in lower tar (15.3 to 14.1 mg), nicotine (1.10 to 1.04 mg), and CO (16.6 to 15.5 mg) deliveries.	8/81
Discontinued	

CHESTERFIELD FILTER 85

Introduced - King size soft pack - slow burning rate resulting in high TPM and nicotine deliveries.	4/66
Coupon added to pack.	4/69
Package changed - Similar to Chesterfield nonfilter.	1/75
Lower tar (18 to 14 mg) and nicotine (1.1 to 1.0 mg) deliveries resulting from a change to a more porous cigarette paper and a decrease in tobacco weight.	7/78
Tar (14 to 12 mg), nicotine (1.0 to 0.9 mg), and CO (14 to 12 mg) decreased due to increased filter length (21 to 25 mm) and tipping paper length (26 to 30 mm).	9/83
Discontinued	

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CHESTERFIELD MENTHOL FILTER 85

Introduced - king size in soft pack - slow burning rate resulting in high TPM and menthol deliveries.

TPM (3 mg), nicotine (0.1 mg), and menthol in smoke (0.1 mg) decreased as result of changes in cigarette paper and filter efficiency.

Coupon added to pack. 4/69

Addition of reconstituted tobacco (0 to 19%), RKS decreased (15 to 3%) - Tar (3 mg) and nicotine (0.1 mg) decreased. 6/70

Discontinued 12/74

DECADE 85

Introduced - Test market - Lower tar (6 mg) and nicotine (0.5 mg) deliveries achieved by filter ventilation. Filter contains a 14 mm polyethylene tube insert similar to the one used on L & M Flavor Lights 85. 10/76

Filter changed by removing polyethylene tube insert resulted in lower filter ventilation and higher filter RTD. No change in smoke deliveries. 10/80

Discontinued

DECADE MENTHOL 85

Introduced - low tar (6 mg) and nicotine (0.5 mg) achieved by high filter ventilation (59%). Has same filter and blend as Decade 85 cigarettes. Tar (5 mg) and nicotine (0.5 mg) listed on pack. 3/77

Filter changed by removing polyethylene tube insert resulted in lower filter ventilation and higher filter RTD. No change in smoke deliveries. 10/80

Discontinued.

DECADE 100

Introduced - 100 mm cigarette - 5 mg tar and 0.4 mg nicotine with a 27 mm CA filter and 65% ventilation. High level of citrate on the cigarette paper. Filter contains a polyethylene tube insert which is similar in construction to filters used on Decade 85 and L & M Lights 85 and 100 cigarettes. 8/78

Discontinued.

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DEVON 85

Introduced - King size mentholated cigarette with "dark-type" filter - Filter has gas phase activity. 2/65

Discontinued.

DORADO 85

Test market - New Mexico - delivers 14 mg tar and 1 mg nicotine. 7/83

DUKE 85

Dropped from C.I. History of Brand in C.1. 12/65. 1/66

EAGLE 85

Plain - test marketed - similar to L & M 85 cigarettes. Sell for $.05 less per pack than any other 85 mm product. 1/76

Discontinued.

EAGLE MENTHOL 85

Menthol - test marketed - similar to L & M 85 cigarettes. Sell for $.05 less per pack than any other 85 mm product. 1/76

Discontinued.

EVE LIGHT 100

Introduced 100 mm cigarette delivering 9 mg tar and 0.7 mg nicotine. 27 mm CA filter with 45% ventilation and a high level of citrate on the cigarette paper. Filter contains a polyethylene tube insert which is similar in construction to filters used on Decade 85 and L & M Lights 85 and 100 cigarettes. 8/78

Replaced by Eve Slim Lights 100 (Box). 6/83

EVE SLIM LIGHTS 100 (BOX)

Replaces Eve Light 100 - delivers 12 mg tar and 1 mg nicotine - 22.7 circumference. 6/83

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EVE LIGHT MENTHOL 100

Introduced 100 mm menthol cigarette delivering 9 mg tar and 0.7 mg nicotine. 27 mm CA filter with 45% ventilation and a high level of citrate on the cigarette paper. Filter contains a polyethylene tube insert which is similar in construction to filters used on Decade 85 and L & M Lights 85 and 100 cigarettes.

Replaced by Eve Slim Lights Menthol 100 (Box). 6/83

EVE SLIM LIGHTS MENTHOL 100 (BOX)

Replaces Eve Light Menthol 100 - delivers 12 mg tar and 1 mg nicotine - 22.7 circumference. 6/83

EVE 100

Plain - 100 mm cigarettes in new pack with floral design - Tipping paper also has floral design. 6/70

Addition of expanded RKS to blend replacing a portion of regular RKS. 3/72

Change in filter length (20 to 25 mm) and fiber denier (3.4 to 4.5) - Change in alkaloids, reducing sugars, and filler rod TPM - Lower tobacco weight and rod density noted. 4/72

Expanded tobacco added to blend (7%) resulting in lower tobacco weight and rod density. 6/73

Cigarette length increased (97.8 to 98.7 mm). 10/74

Fiber shape changed (Y to I). 3/75

Design changed on tipping paper, package and carton. 5/75

Tipping paper length increased from 30 to 32 mm. 1/76

Tar (2 mg) and nicotine (0.1 mg) decreased by increasing filter length from 25 to 27 mm and increasing paper porosity. 3/76

Expanded stem level increased from 4 to 10%. 9/76

EVE MENTHOL 100

100 mm cigarette in new pack with floral design - Tipping paper also has a floral design. 6/70

Addition of expanded RKS to blend replacing a portion of regular RKS. 3/72

Change in filter length (20 to 25 mm) and fiber denier (3.3 to 4.6). No change in smoke deliveries. 12/72

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EVE MENTHOL 100 (cont.)

Reconstituted tobacco content increased (22 to 26%) Resulted in lower total alkaloids, tar (1 mg) and nicotine (0.1 mg).	
Expanded tobacco added to blend (7%) resulting in lower tobacco weight and rod density.	
Fiber denier (3.4 to 4.5) and fiber shape (Y to I) changed. Filter weight increased. No change in smoke deliveries.	4/75
Design changed on tipping paper, package and carton.	5/75
Tipping paper length increased from 30 to 32 mm.	1/76
Tar (3 mg) and nicotine (0.1 mg) decreased by increasing filter length (25 to 27 mm) and increasing paper porosity. Menthol in smoke decreased (0.6 to 0.5 mg).	4/76
Expanded stem level increased from 4 to 10%.	9/76

EVE 120

Plain - test marketed - 21 mm circumference and filter ventilation of 50% - White cigarette paper and packaged in a crush-proof box.	3/76

EVE MENTHOL 120

Menthol - test marketed - 21 mm circumference and filter ventilation of 50% - White cigarette paper and packaged in a crush-proof box.	3/76

EVE ULTRA 120 (BOX)

Distributed nationally - delivers 5 mg tar and 0.5 mg nicotine.	11/88

EVE ULTRA MENTHOL 120 (BOX)

Distributed nationally - delivers 6 mg tar, 0.6 mg nicotine and 0.4 mg smoke menthol.	11/88

L & M 80 (BOX)

Introduced - delivers 25 mg tar.	12/57
Tobacco weight decrease.	12/62
Tobacco weight decrease (0.707 to 0.675 g) - tar decreased (16.5 to 14.3 g).	7/78
Tar decreased (13.2 to 12.4 mg) due to filter length increase (20 to 21 mm).	1/82

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LIGGETT GROUP

L & M 85

Citrate to phosphate paper.	10/60
Lighter, dull cellulose acetate filter on all sizes, no changes in efficiency.	9/60-3/61
Faster burning, more porous paper, reduced TPM (5 mg) and nicotine (0.2 mg).	9/62
Alkaloids reduced gradually.	9-12/62
TPM reduced by 1.5 mg - Alkaloids and nicotine delivery also reduced.	4/63
Filler alkaloids increased slightly and fiber denier changed from 2.5 to 2.0 on all sizes.	4/65
Fiber shape (cloverleaf to I) and fiber denier (2.0 to 2.3) changed.	9/65
TPM and nicotine deliveries increased - Filler alkaloids also increased.	12/65
TPM increased - less efficient filter resulting from change in fiber shape and denier.	4/66
Filter length increased, 17 to 20 mm.	10/66
Tar (2 mg) and nicotine (0.1 mg) decreased by lower filler rod TPM.	10/67
Tar (2 mg) and nicotine (0.1 mg) decreased by lower filler rod TPM.	12/67
Nicotine delivery (0.1 mg) increased by higher alkaloids.	7/70
Tar (1 mg) and nicotine (0.1 mg) decreased. Lower tobacco weight and rod density observed.	1/71
Addition of expanded RKS to blend replacing a portion of regular RKS.	3/72
Expanded tobacco added to blend (7%) resulting in lower tobacco weight and rod density.	6/73
Filter length (20 to 21 mm) and tipping paper (24 to 25 mm) increased. Fiber denier (3.5 to 3.0) and fiber shape (Y to I) changed. Alkaloids decreased. Nicotine delivery lower (1.3 to 1.2 mg).	3/75
Tipping paper length increased from 25 to 26 mm.	1/76
Expanded stem level increased from 4 to 10%.	9/76

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L & M 85 (cont.)

A change in paper component from phosphate to citrate reduced the tar (18 to 17 mg) and filler rod TPM (34 to 31 mg). Faster static burning time also noted.

Lower tar (17 to 15 mg) and nicotine (1.1 to 0.9 mg) deliveries resulting from decrease in tobacco weight and a more porous cigarette paper. Levels of expanded tobacco and expanded stems in blend were increased. 3/78

Increase in filter length (21 to 25 mm) and tipping paper (26 to 30 mm). Filter fiber denier (3.0/Y to 3.7/Y) and paper porosity (13 to 16 sec.) were changed. 12/81

Lower total RTD resulted due to change to mechanically perforated cigarette paper. Increased paper component. 3/83

Decreased paper component (1.4 to 0.5%) and less porous paper (7 to 12 sec.) - decreased puff count (7.6 to 6.6) - Lower tobacco weight (0.650 to 0.619 mg) and rod density (0.223 to 0.210 g/cc) were noted - higher CO delivery (12 to 13 mg). 5/85

Change to perforated cigarette paper. 5/86

L & M LIGHTS 30'S

Distributed in North Carolina - deliver 13 mg tar, 1.2 mg nicotine and has a 23 mm circumference - 30 cigarettes per pack - packed in an 8-7-7-8 configuration - 300 cigarettes per carton. 9/87

L & M FLAVOR LIGHTS 85

Introduced - test market - Low tar (8 mg) and nicotine (0.6 mg) deliveries achieved by filter ventilation. Blend contains no reconstituted tobacco or added stem. Filter contains a 14 mm polyethylene tube originating at the tobacco rod end. 9/76

Filter changed by removing polyethylene tube insert resulted in lower filter ventilation and higher filter RTD. No change in smoke deliveries. 10/80

Discontinued.

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LIGGETT GROUP

L & M LONG LIGHTS 100

Test marketed - Low tar (8 mg) and nicotine (0.7 mg) deliveries achieved by filter ventilation (56%). Blend contains no reconstituted tobacco or added stem. 27 mm CA filter contains a polyethylene tube insert. Tar listed on package as "Only 8 mg tar."	3/
Filter change by removing polyethylene tube insert and increasing fiber denier. No change in smoke deliveries.	10/80
Increase in filter length from (27 to 30 mm) and a change to a smaller fiber denier were noted. No change in smoke deliveries.	11/80

L & M LONG LIGHTS MENTHOL 100

Introduced - Tar (8 mg) and nicotine (0.8 mg) - Very similar in characteristics to L & M Long Lights 100.	6/80
Increase in filter length (27 to 30 mm). No change was observed in the smoke deliveries.	8/81
Discontinued.	

L & M 100

100 mm cigarette with 20 mm CA filter.	7/67
Tar (2 mg) and nicotine (0.2 mg) reduced by lower filler rod TPM.	10/67
Tar (1 mg) and nicotine (0.1 mg) reduced by a change to a more porous paper.	12/67
Tipping paper increased (24 to 27 mm), no change in smoke deliveries.	3/68
Nicotine delivery (0.1 mg) increased by higher alkaloids.	7/70
Tar (1 mg) and nicotine (0.1 mg) decreased. Lower tobacco weight and rod density observed.	1/71
Filter length (20 to 25 mm) and tipping paper (27 to 30 mm) increased . Fiber denier changed resulting in less efficient filter. Tar (1 mg) and nicotine (0.1 mg) increased.	5/71
Addition of expanded RKS to blend replacing a portion of tobacco weight and rod density.	3/72
Expanded tobacco added to blend (7%) resulting in lower tobacco weight and rod density.	6/73
Cigarette length decreased 100 to 99 mm.	9/73

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L & M 100 (cont.)

Fiber shape changed (Y to I).	3/75
Tar (2 mg) decreased resulting from increased filter and tipping paper lengths. A more porous cigarette paper was also noted.	1/76
Expanded stem level increased from 4 to 10%.	9/76
Lower tar (17 to 15 mg) and nicotine (1.1 to 1.0 mg) deliveries resulting from decrease in tobacco weight and a change to a more porous cigarette paper. Levels of expanded tobacco and expanded stems in blend were increased.	3/78
Tar (14.3 to 13.2 mg) and nicotine (1.06 to 0.99 mg) reduced - increase in tipping paper length (32 to 35 mm).	2/81
Filter length increased (27 to 30 mm) - higher filter RTD (2.5 to 2.9) - decrease in tobacco weight (0.16 to 0.18 g).	6/81
11% Freon expanded tobacco added to blend.	6/83
Tobacco weight (0.754 to 0.700) and rod density (0.227 to 0.208 g/cc) decreased due to increased amount of freon expanded tobacco in the blend (17 to 28%).	7/83
Tar (13.2 to 12.4 mg) and CO (14.7 to 13:0 mg) deliveries decreased due to the use of perforated cigarette paper that is more porous (14 to 7 sec.) with a higher level of paper component (0.4 to 1.4%).	11/83

L & M MENTHOL 100

Introduced - 100 mm mentholated cigarette with 20 mm CA filter.	2/67
Tar (3 mg) decreased as tipping paper length was increased.	11/67
Nicotine delivery (0.1 mg) increased by higher alkaloids.	7/70
Tar (2 mg) and nicotine (0.1 mg) decreased correlating with lower filler rod TPM.	11/71
Addition of expanded RKS to blend replacing a portion of regular RKS.	3/72
Filter length (20 to 25 mm) and tipping paper (27 to 30 mm) increased. No change in filter efficiency or smoke deliveries.	10/72
Cigarette length decreased 100 to 99 mm.	9/73
Fiber shape changed (Y to I).	4/75

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L & M MENTHOL 100 (cont.)

Lower tar (2 mg) and nicotine (0.1 mg) as in filter length and tipping paper length. Lower tobacco weight and reducing sugars content noted.	6/76
Expanded stem level increased from 4 to 10%.	9/76
Lower tar (17 to 15 mg) delivery observed. A change to a more porous cigarette paper and a reduction in tobacco weight were also noted.	7/78
Discontinued.	

L & M SUPERIOR 85

Test market - Texas - delivers 14 mg tar and 1 mg nicotine - packaged in a black pack.	7/83
Discontinued.	

LARK 85

Introduced - king size in soft pack - new triple filter containing special carbon granules with gas phase activity.	4/63
Carbon content increased.	4/64
TPM (2 mg) and nicotine (0.1 mg) deliveries decreased.	9/66
Fiber shape changed (I to Y) - no change in smoke deliveries.	1/68
Addition of expanded RKS to blend replacing a portion of regular RKS.	3/72
Reduction in gas phase activity - lower carbon content.	3/72
Alkaloids and reducing sugars higher - Nicotine delivery increased (0.1 mg).	5/72
Expanded tobacco added to blend (7%) resulting in lower tobacco weight and rod density.	6/73
Tar delivery increased (2 mg) - Filler rod TPM increased indicating blend change.	4/74
Tar delivery (2 mg) decreased correlating with a lower filler rod TPM.	1/76
Tar increased (1 mg) correlating with an increase in filler rod TPM.	5/76
Expanded stem level increased from 4 to 10%.	9/76

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LARK 85 (cont.)

Lower tar (17 to 15 mg) and nicotine (1.3 to 1.1 mg) deliveries resulting from a change to a more porous paper and a lower tobacco weight. An increase in expanded tobacco (5 to 7%) and a decrease in the reconstituted material (16 to 14%) correlated with the lower tobacco weight. Circumference decreased from 25.0 to 24.7 mm.	6/79
Tipping paper length increased (25 to 30 mm) - less porous cigarette paper (7 to 15 sec.) - Tar decreased (14.0 to 13.5 mg).	1/82
Filter length increased (20 to 25 mm) - outer plug of plug-space-plug increased - decrease in tobacco weight.	6/82
Increased level of expanded tobacco (17 to 23%) - decreased tobacco weight and rod density.	7/85

LARK 100

Introduced - 100 mm cigarette with CA-space-CA filter, with space containing approximately 88 mg of carbon.	9/68
Tar (1 mg) increased correlating to a change in paper porosity and slower static burning time.	4/71
Addition of expanded RKS to blend replacing a portion of regular RKS.	3/72
Alkaloids and reducing sugars higher - Nicotine delivery increased (0.1 mg).	5/72
Expanded tobacco added to blend (7%) resulting in lower tobacco weight and rod density.	6/73
Cigarette length decreased 100 to 99 mm.	9/73
Expanded stem level increased from 4 to 10%.	9/76
Increases in filter length (20 to 25 mm) and tipping paper length (28 to 30 mm) resulted in a slight reduction in tar delivery (18.7 to 18.2 mg). A lower tobacco weight was also noted.	9/77
Lower tar (18 to 16 mg) and nicotine (1.3 to 1.2 mg) deliveries resulting from a change to a more porous cigarette paper and a lighter tobacco weight. Increase in expanded tobacco (5 to 7%).	6/79
Tipping paper length increased (30 to 35 mm) - less porous cigarette paper (7 to 15 sec.) - decrease in tar (14.7 to 14.2 mg).	1/82

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LARK 100 (cont.)

Tobacco weight (0.799 to 0.765 g) decreased - increased filter length (25 to 30 mm). 82

Increased level of expanded tobacco (17 to 23%) - decreased tobacco weight and rod density.

LARK II 85

Test marketed - low tar (8 mg) and nicotine (0.5 mg) cigarette with a 25 mm CA filter with ventilation (47%). The CA filter has a pocket containing carbon granules (14 mg). Filter similar in construction to the ones used by Brown & Williamson on products containing Duolite granules in filters. Tar listed on pack as "Only 8 mg." 6/77

Discontinued.

LARK LIGHTS 85

Test marketed - 85 mm cigarette delivering 8 mg tar and 0.6 mg nicotine - 25 mm CA filter containing charcoal granules with 40% ventilation. Blend contains 19% Freon expanded tobacco. 11/78

The elimination of filter ventilation resulted in an increase in tar (7.1 to 12.8 mg), nicotine (0.70 to 0.99 mg) and CO (6.9 to 13.8 mg) deliveries. A change in filter construction from carbon in a pocket to carbon in a plug-space-plug filter was noted. An increase in carbon content (7 to 64 mg) and a more porous cigarette paper (12 to 7 sec.) were noted. Expanded tobacco decreased (26 to 15%) and reconstituted tobacco increased (10 to 16%). This resulted in an increase in tobacco weight (0.589 to 0.640 g). The packaging was changed from white to red. These cigarettes are now similar to Lark 85. 8/81

Increased level of expanded tobacco (17 to 23%) - decreased tobacco weight and rod density. 7/85

LARK LIGHTS 100

Test marketed - 100 mm cigarette delivering 7 mg tar and 0.6 mg nicotine - 25 mm CA filter containing charcoal granules with 40% ventilation. Blend contains 19% Freon expanded tobacco. 11/78

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LARK LIGHTS 100 (cont.)

The elimination of filter ventilation resulted in tar (7.2 to 13.1 mg) nicotine (0.65 to 1.08 mg) and CO (6.9 to 13.1 mg) deliveries. A change in filter construction from carbon in a pocket to carbon in a plug-space-plug filter was noted. An increase in carbon content (6 to 65 mg) and a more porous cigarette paper (12 to 6 sec.) were noted. Expanded tobacco decreased (26 to 15%) and reconstituted tobacco increased (10 to 16%). This resulted in an increase in tobacco weight (0.717 to 0.802 g). The packaging was changed from white to red. These cigarettes are now similar to Lark 100. 8/81

Tobacco weight (0.794 to 0.762 g) decreased - increased filter length (25 to 30 mm). 7/82

Increased level of expanded tobacco (17 to 23%) - decreased tobacco weight and rod density. 7/85

Higher CO delivery (13 to 14 mg) resulted from a decreased level of paper component (1.8 to 0.6%). 3/87

MASTERPIECE 85

Introduced - King size in soft pack with "pipe tobacco blend" - High TPM and nicotine. 6/65

Discontinued. 12/65

OASIS 85

Dropped from C.I. History of Brand in C.1. 12/65. 1/66

OMNI LUXURY LIGHTS MENTHOL 100

Introduced - test market - Tar (9.2 mg) and nicotine (0.74 mg). The ventilation system consists of one row of laser perforation. 7/81

Discontinued.

PYRAMID 85 (NF)

Introduced nationally - will sell for $2.50 less per carton than generic cigarettes - delivers 21 mg tar and 1.4 mg nicotine. 1/89

PYRAMID FULL FLAVOR 85

Introduced nationally - will sell for a subgeneric price - delivers 15 mg tar and 1.1 mg nicotine - uses wood pulp cigarette paper. 9/89

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PYRAMID FULL FLAVOR 85 (MENTHOL)

Introduced nationally - will sell for a subgeneric price - delivers 15 mg tar, 1.1 mg nicotine and 0.5 mg smoke menthol - uses wood pulp cigarette paper. 9/89

PYRAMID LIGHTS 85

Introduced nationally - will sell for $2.50 less per carton than generic cigarettes - delivers 14 mg tar and 1.1 mg nicotine. 1/89

Tar (14 to 11 mg), nicotine (1.1 to 0.8 mg) and CO (13 to 12 mg) deliveries decreased as the result of ventilation (none to 20%). Paper permeability decreased (143 to 46 CU) - fiber denier changed (4.4 to 3.2) - higher total RTD (117 to 126 mm) and filter RTD (65 to 96 mm) were noted. 3/90

PYRAMID FULL FLAVOR 100

Introduced nationally - will sell for a subgeneric price - delivers 16 mg tar and 1.3 mg nicotine - uses wood pulp cigarette paper. 9/89

PYRAMID FULL FLAVOR MENTHOL 100

Introduced nationally - will sell for a subgeneric price - delivers 16 mg tar, 1.3 mg nicotine and 0.5 mg smoke menthol - uses wood pulp cigarette paper. 9/89

PYRAMID LIGHTS 100

Introduced nationally - will sell for $2.50 less per carton than generic cigarettes - delivers 14 mg tar and 1.1 mg nicotine. 1/89

Tar (13 to 11 mg), nicotine (1.0 to 0.9 mg) and CO (14 to 11 mg) deliveries decreased as the result of ventilation (none to 33%). A higher puff count (8.3 to 10.0), lower total RTD (131 to 110 mm) and higher filter RTD (65 to 79 mm) were observed. A less permeable paper was noted (77 to 67 CU). 3/90

PYRAMID LIGHTS MENTHOL 100

Introduced nationally - will sell for $2.50 less per carton than generic cigarettes - delivers 14 mg tar, 1.1 mg nicotine and 0.5 mg smoke menthol. 1/89

Tar (14 to 11 mg), nicotine (1.1 to 0.9 mg) and CO (14 to 11 mg) deliveries as a result of ventilation (none to 34%). A lower level of paper component (2.0 to 0.5%) and a change to a less permeable cigarette paper (124 to 53 CU) resulted in a higher puff count (8.3 to 9.8). A lower total RTD (125 to 102 mm) and higher filter RTD (69 to 80 mm) were noted. 3/90

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PYRAMID ULTRA LIGHTS 100

Introduced nationally will sell for $2.50 less per carton than generic cigarettes - delivers 6 mg tar and 0.6 mg nicotine 9

ST. MORITZ 100

Plain - Test marketed - Previously marketed by Larus & Bro. Blend contains both expanded tobacco and stems. Tar delivery is 18 mg. 7/

Tar decreased from 19 to 16 mg. 8/76

Filter length increased 25 to 27 mm. 7/77

Tar decreased 16 to 13 mg; change to a more porous, mechanically perforated cigarette paper. 7/78

ST. MORITZ MENTHOL 100

Menthol - Test marketed - Previously marketed by Larus & Bro. Blend contains both expanded tobacco and stems. Tar delivery is 18 mg. 7/74

Lower tar (17 to 14 mg) and nicotine (1.1 to 1.0 mg) deliveries resulting from an increase in filter length (25 to 27 mm) and a change to a more porous cigarette paper (22 to 13 seconds). 2/78

Replaced inherently porous cigarette paper with mechanically perforated paper. Decrease in tar (14.4 to 13.7 mg). 7/78

SAVVY LIGHTS 100

Test marketed in St. Louis, Missouri and Peoria, Illinois - delivers 10 mg tar and 0.9 mg nicotine. 11/88

SAVVY LIGHTS MENTHOL 100

Test marketed in St. Louis, Missouri and Peoria, Illinois - delivers 10 mg tar, 0.9 mg nicotine and 0.4 mg smoke menthol. 11/88

SAVVY ULTRA LIGHTS 100

Test marketed in St. Louis, Missouri and Peoria, Illinois - delivers 6 mg tar and 0.6 mg nicotine. 11/88

STRIDE 85

Value entry product distributed in Syracuse and Rochester, New York and Omaha, Nebraska. The pack is silver and burgundy. Similar to L & M 85 in smoke deliveries. 7/84

National. 1/85

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LIGGETT GROUP

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STRIDE 100

Value entry product distributed in Syracuse and Rochester New York and Omaha, Nebraska. The pack is silver and burgundy. Similar to L & M 100 in smoke deliveries.

National.

VELLO 85

Plain - Test marketed 21 mm CA filter with a single row of ventilation holes having a center core of 8.0 Y-shape fibers and an outer periphery of 3.0 I-shape fibers - Filter system developed by Dr. Vello Norman - Tar (12 mg) and nicotine (0.8 mg) deliveries. 10/75

Cigarette re-engineered - Lower tar and nicotine as a result of a change in filter construction and blend formulation. 11/75

Discontinued.

VELLO MENTHOL 85

Menthol - Test marketed 21 mm CA filter with single row of ventilation holes having a center core of 8.0 Y-shape fibers and an outer periphery of 3.0 I-shape fibers - Filter system developed by Dr. Vello Norman - Tar (12 mg) and nicotine (0.8 mg) deliveries. 10/75

Cigarette re-engineered - Changes in filter construction and blend formulation same as for Vello 85 cigarettes. 11/76

Discontinued.

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D. LORILLARD COMPANY

ASPEN MENTHOL 85

Test marketed - Low tar (9 mg) and nicotine (0.8 mg) with a 25 mm CA filter containing 33% ventilation. High level of citrate in a fast burning cigarette paper. Porous tipping paper with perforated plug wrap.

Discontinued.

ASPEN MENTHOL 100

Test marketed - Low tar (9 mg) and nicotine (0.8 mg) with a 27 mm CA filter containing 40% ventilation. High level of citrate in a fast burning cigarette paper. Porous tipping paper with perforated plug wrap. 7/79

Discontinued.

BEECH-NUT 85 (NF)

Introduced - nonfilter, king size similar to Old Gold Straights. 7/61

Discontinued.

BISTRO 85

Introduced - test market - Delivers 11 mg tar and 1.02 mg nicotine. The filter system uses micro-mechanical perforation. 9/81

Discontinued.

BISTRO MENTHOL 85

Introduced - test market - Delivers 11 mg of tar, 1.01 mg of nicotine, and 0.35 mg menthol. The filter system uses micro-mechanical perforation. 9/81

Discontinued.

CENTURY GREAT LENGTHS 100

100 mm cigarette with 20 mm CA filter. Name and warning label printed on cellophane - no identification on package. 9/67

Tar (2 mg) reduced by increase in tipping paper (24 to 30 mm). 2/68

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CENTURY GREAT LENGTHS 100 (continued)

Tar (1 mg) and nicotine (0.1 mg) decreased - change in filter - a new 25 mm dual filter with carbon noted. 10/65

Discontinued.

DANVILLE 85

Introduced - king size filter cigarette. 4/66

Discontinued. 12/66

DANVILLE MENTHOL 85

Introduced - mentholated cigarette with 20 mm CA filter. 8/66

Discontinued. 12/66

DUNCAN 85 (NF)

Introduced - king size nonfilter - filler has a larger cut than normal domestic cigarettes. 9/65

Plastic mouthpiece added to cigarette - no filtration from mouthpiece. 11/65

Discontinued.

HARLEY DAVIDSON 85

Test market - Terre Haute, Indiana - 13 mg tar, 0.8 mg nicotine - black pack with Harley Davidson logo. 9/87

Reintroduced as a generic product in Arkansas test market - delivers 11 mg tar and 0.8 mg nicotine. 11/89

HARLEY DAVIDSON LIGHTS 85

Test marketed in Arkansas as a generic product - packaged in a black pack with a gold eagle embossed on the pack - delivers 8 mg tar and 0.7 mg nicotine. 11/89

HELMAR 80

80 mm cigarette - 17 mm CA filter - contains no RKS or reconstituted material. 4/67

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HERITAGE 85	
Introduced - test market - Delivers 10.9 mg tar and 0.93 mg nicotine. The ventilation system consists of a band of micro-mechanical perforation. These cigarettes are similar to Bistro 85, Rebel 85, and Maverick 85.	
Discontinued.	
HERITAGE LIGHTS 85	
Test marketed in Louisville, Kentucky; Portland, Oregon and Maine. Delivers 10 mg tar and 0.8 mg nicotine.	3/90
HERITAGE 100	
Introduced - test market - Delivers 11.6 mg tar and 1.01 mg nicotine. The ventilation system consists of a band of micro-mechanical perforation. These cigarettes are similar to Rebel 100 and Maverick 100.	11/81
Discontinued.	
HERITAGE LIGHTS 100	
Test marketed in Louisville, Kentucky; Portland, Oregon and Maine. Delivers 10 mg tar and 0.8 mg nicotine.	3/90
KENT 80	
Expanded tobacco added to blend (9%) - Resulted in lower tobacco weight and rod density and higher total RTD - Also, lower puff count, tar and nicotine deliveries noted.	12/72
Filter length (20 to 21 mm) and tipping paper length (24 to 25 mm) increased. No change in smoke deliveries noted.	4/77
Decrease in tar delivery (15 to 13 mg) resulting from introduction of filter ventilation (17%). The new diluted filter is referred to on the pack as the Micronite II filter.	6/78
KENT 85	
Reconstituted tobacco first observed - Lighter filter with same efficiency.	5/61
Less porous paper with no effect on TPM or nicotine deliveries.	11/61
Alkaloids reduced by 0.1%.	10/63
Fiber shape changed cloverleaf to I.	4/64

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KENT 85 (continued)

Filter length increased 17 to 20 mm.	8/64
Alkaloids and nicotine delivery increased slightly.	7/65
Alkaloids and nicotine delivery increased.	9/65
TPM increased 1 mg.	4/66
TPM decreased 1 mg by an increase in paper porosity.	6/67
Tipping paper increased 24 to 25 mm.	3/69
Reconstituted tobacco content increased (8 to 12%).	4/69
RKS decreased (8 to 4%).	10/69
Reconstituted tobacco increased 10 to 17%.	10/70
Reconstituted tobacco increased (16 to 18%); RKS decreased (6 to 2%).	9/71
RKS decreased 2 to 0%.	10/71
Alkaloids and reducing sugars increased - Nicotine delivery increased (0.1 mg).	5/72
Expanded tobacco added to blend (9%) - Resulted in lower tobacco weight, rod density and higher total RTD - Also, lower puff count, tar and nicotine deliveries noted.	12/72
Filter length increased (20 to 21 mm). Lower tobacco weight and rod density noted.	7/76
Lower tar (17 to 13 mg) and nicotine (1.1 to 1.0 mg) resulted from the introduction of filter ventilation (27%). New ventilated filter is referred to on pack as the Micronite II filter.	6/77
Decrease in tar delivery (13 to 12 mg) resulting from an increase in filter ventilation.	11/78

KENT MENTHOL 85

Test marketed - Different from Kent 85 plain in many characteristics.	5/71
Discontinued.	

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KENT 100

Introduced - 100 mm cigarette with 20 mm CA filter.	4/67
Tar (1 mg) reduced by increasing tipping paper (24 to 27 mm).	1/68
Tar (2 mg) and nicotine (0.1 mg) reduced by increasing tipping paper (27 to 30 mm).	1/68
Tar (1 mg) and nicotine (0.1 mg) reduced by a change to a more porous paper.	5/68
RKS decreased (8 to 4%).	10/69
Reconstituted tobacco increased 10 to 17%.	10/70
Fiber shape changed from X-shape to Y-shape - Filter weight decreased - Tar increased (1 mg).	9/71
Reconstituted tobacco increased 16 to 18% - RKS decreased 6 to 2%.	9/71
RKS decreased 2 to 0%.	10/71
Alkaloids and reducing sugars increased - Nicotine delivery increased (0.1 mg).	5/72
Expanded tobacco added to blend (9%) - Resulted in lower tobacco weight, rod density puff count, and higher total RTD - Also, lower tar and nicotine deliveries noted.	12/72
Tipping paper length increased 30 to 32 mm - tar (1 mg) and nicotine (0.1 mg) decreased.	11/74
Cigarette length (99.2 to 98.3 mm) decreased. Tobacco weight (0.87 to 0.84 g) decreased.	5/75
Filter length (25 to 27 mm) increased. No change in smoke deliveries.	6/75
Cigarette length increased (98.9 to 99.3 mm).	8/76
Lower tar (19 to 15 mg) and nicotine (1.3 to 1.1 mg) resulted from a change to a more efficient filter (42-52%) and more porous cigarette paper. Higher total and filter RTD's noted.	6/77
Lower tar delivery (15 to 13 mg) resulting from introduction of filter ventilation (30%). Change to a less efficient filter was also noted. The new ventilated filter is referred as the Micronite II filter.	7/77

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KENT 100 (cont.)

Decrease in filter ventilation and change to a less porous cigarette paper resulted in an increase in tar delivery (13.6 to 14.5 mg).	1/77
Decrease in tar delivery (14 to 13 mg) resulted from an increase in filter ventilation. Decrease in total RTD was noted.	8/
Tipping paper length increased (32 to 34 mm) - no changes were noted in filter length or smoke deliveries.	3/87

KENT MENTHOL 100

100 mm mentholated cigarette similar to Kent 100.	6/70
Filter fiber shape changed from X-shape to Y-shape - Filter weight decreased.	8/71
Reconstituted tobacco increased 16 to 18% - RKS decreased 6 to 2%.	9/71
RKS decreased 2 to 0%.	10/71
Expanded tobacco added to blend (9%) - Resulted in lower tobacco weight, rod density, and puff count. Also, lower tar and nicotine deliveries noted.	12/72
Tipping paper length increased (30 to 32 mm) - Lower tar (1 mg) and nicotine (0.1 mg).	1/75
Cigarette length (99.1 to 98.3 mm) decreased. Tobacco weight (0.84 to 0.82 g) decreased.	5/75
Filter length increased from 25 to 27 mm.	5/76
Cigarette length increased (98.3 to 99.2 mm).	8/76
Introduction of filter ventilation at the 25% level resulted in lower tar delivery (17 to 15 mg).	8/78

KENT III 85

Test marketed - 85 mm cigarette delivering 4 mg tar and 0.4 mg nicotine. Characterized by high alkaloid blend (2.8%) containing 19% Freon expanded tobacco. 25 mm dual CA filter with 63% ventilation.	11/78
Tar (3 to 2 mg) data changed on pack to comply with FTC Report.	4/82
Tar and nicotine deliveries removed from the pack.	7/83

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KENT III 100

Brand extension of Kent III 85. Tar (5 mg) and nicotine (0.5 mg) deliveries. Brand characterized by a high alkaloids blend containing 19% expanded tobacco and a dual 27 mm CA filter with 51% ventilation. Ventilation achieved by 6 rows of mechanically perforated holes. 6/79

Tar (5 to 4 mg) and nicotine (0.6 to 0.5 mg) data changed on pack to comply with FTC Report. 4/82

Tar and nicotine deliveries removed from the pack. 7/83

KENT III 100 (BOX)

Tipping decreased (35 to 34 mm) - lower tar, nicotine and CO deliveries resulted from increased ventilation. 7/87

Tar, nicotine and CO increased as a result of lower ventilation. 11/87

The tar, nicotine and CO deliveries decreased as a result of higher ventilation. A lower total RTD was noted. 1/88

Nationally introduced - similar to Kent III 100 (Soft Pack). 11/84

KENT GOLDEN LIGHTS 80 (BOX)

Introduced nationally - delivers 9 mg tar and 0.7 mg nicotine. 7/85

KENT GOLDEN LIGHTS 85

Plain - Introduced porous tipping paper with perforated plug wrap - Longest tipping paper (32 mm) of any 85 mm cigarette - Tar (9 mg) and nicotine (0.8 mg) deliveries. 11/75

Tar (9 to 8 mg) and nicotine (0.8 to 0.7 mg) deliveries decreased by increasing filter ventilation and paper porosity. Filler alkaloids content decreased. 3/76

Cigarette length increased (84.2 to 84.8 mm). Decrease in rod density and total RTD. 12/76

Cigarette length decreased (84.7 to 84.1 mm); lower tobacco weight also noted. 7/78

Lorillard changed the name of Kent Golden Lights 85 to Golden Lights 85. The product is the same; only the name has changed. 10/78

Tar (8 to 7 mg) and nicotine (0.8 to 0.7 mg) values changed on pack to comply with FTC Report. 5/82

Name changed back to Kent Golden Lights 85. 6/83

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KENT GOLDEN LIGHTS 85 (cont.)

Increased tar, nicotine and CO deliveries resulted from lower ventilation. 11/76

KENT GOLDEN LIGHTS MENTHOL 85

Test marketed - similar to Golden Lights 85 - Tar (8 mg) and nicotine (0.7 mg) deliveries. 6/77

Lower tar delivery (8.7 to 7.4 mg) resulting from an increase in filter ventilation. 11/77

Lorillard changed the name of Kent Golden Lights Menthol 85 to Golden Lights Menthol 85. The product is the same; only the name has changed. 10/78

Name changed back to Kent Golden Lights Menthol 85. 6/83

Tar (8 to 9 mg) and CO (8 to 9 mg) deliveries increased due to higher level of paper component (1.3 to 2.1%) - higher filler menthol (1.6 to 2.0 mg) correlated with higher smoke menthol (0.28 to 0.36 mg). 3/84

Paper component decreased (2.1 to 1.6%) - no changes in smoke deliveries. 9/84

Tar (8.7 to 8.0 mg) and CO (9.0 to 7.4 mg) decreased - increased filter ventilation (34 to 43%). 1/85

Increased tar, nicotine and CO deliveries resulted from lower ventilation. 3/86

KENT GOLDEN LIGHTS 100

Introduced - low tar (9 mg) and nicotine (0.8 mg) with 27 mm CA filter containing ventilation (40%). High level of paper component in a fast burning cigarette paper. Porous tipping paper with perforated plug wrap. Tar (10 mg) and nicotine (0.9 mg) listed on pack. 5/77

Lorillard changed the name of Kent Golden Lights 100 to Golden Lights 100. The product is the same; only the name has changed. 10/78

Nicotine value (0.7 to 0.8 mg) changed on pack to comply with FTC Report. 5/82

Name changed back to Kent Golden Lights 100. 6/83

Tipping decreased (35 to 34 mm). 7/87

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KENT GOLDEN LIGHTS 100 BOX

Introduced nationally - delivers 9 mg tar and 0.8 mg [illegible] 5/71

KENT GOLDEN LIGHTS MENTHOL 100

Introduced - Similar to the Golden Lights 100 cigarettes.

Lorillard changed the name of Kent Golden Lights Menthol 100 to Golden Lights Menthol 100. The product is the same; only the name has changed. 10/78

Tar data changed on pack (8 to 7 mg) to comply with FTC Report. 6/82

Name changed back to Kent Golden Lights Menthol 100. 6/83

L.T. BROWN 120

Plain - Introduced 120 mm cigarettes - 30 mm CA filter. Tar (20 mg) and nicotine (1.5 mg) deliveries. Dark brown cigarette paper with pin-stripe lines. Discontinued. 6/75

L.T. BROWN MENTHOL 120

Menthol - Introduced 120 mm cigarettes - 30 mm CA filter. Tar (20 mg) and nicotine (1.5 mg) deliveries. Dark brown cigarette paper with pin-stripe lines. 6/75

Discontinued.

LUKE 85

Test marketed - new 85 mm "full flavor" cigarette - Blend contains expanded tobacco (7%). 1/74

Discontinued.

MAVERICK 85

Test marketed - High alkaloid blend (2.0%) and nicotine delivery (1.6 mg) for Lorillard product - 20 mm CA filter. 11/71

Alkaloids decreased - Sugars increased - Tar (2 mg) and nicotine (0.1 mg) reduced - Filler and TPM reduced (3 mg). 5/72

Test marketed in Washington State - 85 mm - tar (10.3 mg) and nicotine (0.86 mg) - filter ventilation by band of MP holes. 5/81

Discontinued.

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MAVERICK 100

Test marketed in Washington State - 100 mm, tar (1[illegible] mg) and nicotine (0.91 mg) - filter ventilation by band of MP holes. 4/81

Discontinued.

MAX SLIM LIGHTS 100 (BOX)

Introduced - Tar (10 mg) and nicotine (0.9 mg) - Two rows mechanical perforation (32% ventilation) - similar to Virginia Slims Lights 100. 2/82

Discontinued.

MAX SLIM LIGHTS MENTHOL 100 (BOX)

Introduced - Tar (10 mg), nicotine (0.9 mg), and menthol (0.39 mg) - Two rows of mechanical perforation (32% ventilation) similar to Virginia Slims Lights Menthol 100. 2/82

Discontinued.

MAX 120

Plain - Introduced 120 mm cigarette with 30 mm CA filter - White cigarette paper - Tar (16 mg) and nicotine (1.2 mg) deliveries. 7/75

MAX MENTHOL 120

Menthol - Introduced 120 mm cigarette with 30 mm CA filter - White cigarette paper - Tar (16 mg) and nicotine (1.2 mg) deliveries. 7/75

NEWPORT 80 (BOX)

Filter length (17 to 20 mm) and tipping paper length (22 to 24 mm) increased. Tar (18 to 16 mg) and nicotine (1.2 to 1.1 mg) deliveries decreased. 2/75

NEWPORT 80 (NON-MENTHOL-BOX)

Test marketed in Penn. - 80 mm. non-mentholated, tar (11.8 mg) and nicotine (1.04 mg) - filter ventilation by band of MP holes. 4/81

Discontinued.

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NEWPORT 85

Less porous paper with no effect on TPM or nicotine delivery.	2/61
Alkaloids decreased by 0.2%.	6/[illegible]
Increases observed in TPM and nicotine deliveries - Blend change indicated by increases in total alkaloids.	12/[illegible]
Nicotine delivery and filler alkaloids increased.	4/65
TPM and nicotine increased - less efficient filter - change in filter fiber denier.	1/66
Alkaloids and nicotine delivery decreased.	7/66
Filter length increased (17 to 20 mm).	1/67
RKS content increased 8 to 12%	4/67
Tar (1 mg) and nicotine (0.1 mg) lower, no other changes noted.	7/68
Reconstituted material increased, 8 to 13%.	9/68
Package design change.	10/68
Color of tipping paper changed from white to cork.	11/68
Tar (2 mg), nicotine (0.1 mg), and menthol delivery (0.15 mg) decreased, amount of paper component increased, faster static burning time, filler menthol lower.	8/69
Blend change, higher alkaloids and lower sugars - more porous cigarette paper. No change in smoke deliveries.	11/69
Reconstituted tobacco increased 11 to 16% - RKS decreased 9 to 4%.	10/70
Reconstituted tobacco increased 16 to 18% - RKS decreased 6 to 0%.	9/71
Fiber shape changed X to Y.	11/71
Tar delivery (1.5 mg) and filler rod TPM (2 mg) decreased - Alkaloids increased.	5/72
Tar (1 mg) and nicotine (0.2 mg) increased - Changes noted in total alkaloids and paper porosity. Fiber shape and denier change correlating with a more efficient filter.	8/72

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NEWPORT 85 (cont.)

Expanded tobacco added to blend (9%) - Resulted in higher tobacco weight, rod density and higher total RTD - Also, lower puff count, tar and nicotine deliveries noted.	12/72
Tar (2 mg) and nicotine (0.1 mg) deliveries were higher - Increase in filler rod TPM and filler alkaloids content.	
Filter length (20 to 21 mm) and tipping paper length (24 to 25 mm) increased.	12/76

NEWPORT 85 25's

Test marketed in Pennsylvania - similar to Newport 85 - 200 cigarettes per carton - eight packs per carton.	7/85
Test market expanded - all East Coast.	3/86

NEWPORT 85 (NON-MENTHOL-BOX)

Test marketed in Penn. - 85 mm, non-mentholated, tar (13 mg) and nicotine (1.08 mg) - filter ventilation by band of MP holes.	4/81
Discontinued.	

NEWPORT 100

Introduced - 100 mm mentholated cigarette with 20 mm CA filter.	6/67
Tar (3 mg) and nicotine (0.2 mg) reduced by increase in tipping paper length (24 to 30 mm).	7/68
Filter length increased 20 to 25 mm, no change in smoke deliveries.	9/68
Tar (3 mg) increased - Filter length (20 to 25 mm) and fiber denier change - Also, tipping paper changed from white to cork.	11/68
Menthol in smoke and filler decreased.	9/69
Blend change, higher alkaloids and lower sugars - more porous cigarette paper - No change in smoke deliveries.	11/69
Reconstituted tobacco increased 11 to 16%.	10/70
RKS decreased 7 to 3%.	9/71
RKS decreased 3 to 0%.	10/71

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NEWPORT 100 (cont.)

Tar (2 mg) and nicotine (0.3 mg) were increased by changes in total alkaloids and paper porosity - Fiber shape and denier changed.	
Expanded tobacco added to blend (9%) - Resulted in lower tobacco weight, rod density, puff count, and higher total RTD - Also, lower tar and nicotine deliveries noted.	12/73
Blend change - Higher alkaloids and increased filler rod TPM delivery resulting in higher tar (1 mg) and nicotine (0.1 mg).	7/74
Tipping paper length (30 to 32 mm) increased. Tar (20 to 19 mg) and nicotine (1.4 to 1.3 mg) deliveries decreased.	2/75
Cigarette length (99.2 to 98.3 mm) decreased. Lower tobacco weight noted. No change in smoke deliveries.	4/75
Increase in tar (1 mg) and nicotine (0.1 mg) resulting from a change to a less porous paper - Filter length increased from 25 to 27 mm.	11/75
Tar (2 mg) and nicotine (0.1 mg) deliveries were higher - Increase in filler rod TPM and filler alkaloids content.	5/76
Cigarette length increased (98.2 to 99.3 mm).	12/76
Tipping paper length increased (32 to 34 mm) - no changes were noted in filter length or smoke deliveries.	3/87

NEWPORT 100 25's

Test marketed in Pennsylvania - similar to Newport 100 - 200 cigarettes per carton - eight packs per carton.	7/85
Test market expanded - all East Coast.	3/86
Tipping paper length increased (32 to 34 mm) - no changes were noted in filter length or smoke deliveries.	3/87

NEWPORT 100 (BOX)

Test marketed in Connecticut - tar 20 mg, nicotine 1.6 mg.	6/84
Discontinued.	

NEWPORT LIGHTS 80 (BOX)

Test marketed - Tar (8 mg) and nicotine (0.7 mg) - Low delivery result of 33% filter ventilation with porous tipping paper. Similar to physical characteristics and blend composition of Newport Lights 85.	3/80

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NEWPORT LIGHTS 85

Test marketed - low tar (10 mg) and nicotine (0.8 mg). Characterized by a 25 mm CA filter with ventilation (21%) and a high level of paper component in a fast burning cigarette paper. Ventilation system utilizes porous tipping paper.

Increased tar and CO deliveries resulted from lower ventilation. 1/8[illegible]

NEWPORT LIGHTS 100

Introduced - nationally - Delivers 9 mg tar, 0.78 mg nicotine, and 0.36 mg of menthol. The low delivery is achieved by using porous tipping paper. 9/81

Increased tar, nicotine and CO deliveries resulted from lower ventilation - higher total RTD resulted. 1/86

Decreased tar, nicotine and CO deliveries resulted from higher ventilation - lower total RTD resulted. 3/86

Tar (10 to 9 mg), CO (9 to 7 mg) and smoke menthol (0.4 to 0.3 mg) deliveries decreased as a result of increased ventilation (37 to 44%) - A lower total RTD was observed (108 to 101 mm). 9/89

NEWPORT LIGHTS 100 (BOX)

Test marketed in Connecticut - tar 9 mg, nicotine 0.8 mg. 6/84

Discontinued.

[illegible] 100 (BOX)

Test marketed - delivers 8 mg tar, 0.7 mg nicotine and 0.6 mg smoke menthol. 3/86

NEWPORT STRIPES 100 (BOX)

Test market - New York - delivers 11 mg tar, 0.8 mg nicotine - only nonmentholated Newport on the market. 9/87

NEWPORT STRIPES 100 MENTHOL (BOX)

Test market - New York - delivers 11 mg tar, 0.8 mg nicotine - and 0.6 mg smoke menthol 9/87

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LORILLARD COMPANY

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OLD GOLD 80 (BOX)

Introduced in flip-top box - Similar to Old Gold 100	5/74
Discontinued.	

OLD GOLD 100

Introduced - 100 mm cigarette with 25 mm CA filter.	9/69
Coupon added to pack.	6/69
Reconstituted tobacco increased 10 to 16% - RKS decreased 9 to 4%.	10/70
Filter length (25 to 27 mm) increased - Tipping paper length (30 to 32 mm) increased. Tar (21 to 20 mg) and nicotine (1.4 to 1.3 mg) deliveries decreased.	2/75

OLD GOLD FILTER 85

Alkaloids reduced by 0.2%, nicotine delivery decreased.	1/63
Nicotine delivery and filler alkaloids increased - TPM increased slightly.	4/65
Filter length (17 to 20 mm) and fiber denier increased - tobacco weight decreased.	5/65
Coupon added to pack.	1/66
TPM (2 mg) and nicotine (0.1 mg) deliveries increased.	7/66
Reconstituted tobacco content increased (9 to 12%).	5/70
Reconstituted tobacco increased 10 to 16% - RKS decreased 8 to 5%.	10/70
Reconstituted tobacco increased 16 to 19% - RKS decreased 6 to 0%.	9/71
Filter fiber shape (I to Y) and denier (3.6 to 3.0) changed - No change in smoke deliveries.	10/71
Expanded tobacco added to blend (9%) - Resulted in lower tobacco weight, rod density, and higher total RTD - Also, lower puff count, tar, and nicotine deliveries were noted.	12/72
Tipping paper length increased 24 to 25 mm.	9/73
Filter length (20 to 21 mm) and tipping paper length (25 to 26 mm) increased.	11/74

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OLD GOLD FILTER 85 (cont.)

Tar (1 mg) and nicotine (0.1 mg) increased as result of increase in filler rod TPM. 12/76

Lower tar (17 to 16 mg) and filler rod TPM deliveries observed resulting from a decrease in tobacco weight. 9/78

Coupon dropped from pack. 11/79

OLD GOLD LIGHTS 85

Introduced on test market - Low delivery (9 mg tar and 0.8 mg nicotine) cigarettes characterized by 25 mm CA filter with 34% ventilation. Ventilation achieved using porous tipping paper. Further characterized by a high level of paper component on cigarette paper. 8/77

OLD GOLD STRAIGHTS 85 (NF)

Long to king size. 5/60

OLD GOLD LIGHTS 100

Test marketed - delivers 12 mg tar and 0.9 mg nicotine. 5/85

REBEL 85

Introduced - test market - These cigarettes deliver 11.1 mg tar and 0.96 mg nicotine. The ventilation system consists of a band of micro-mechanical perforation. These cigarettes are similar to Maverick 85. 10/81

Discontinued. 4/83

REBEL 100

Introduced - test market - These cigarettes deliver 10.9 mg tar and 0.99 mg nicotine. The ventilation system consists of a band of micro-mechanical perforation. These cigarettes are similar to Maverick 100. 10/81

Discontinued. 4/83

REDFORD 85

Test marketed - new 85 mm "full flavor" cigarette - Similar to Old Gold 85. 4/73

Discontinued.

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SATIN 100

Test marketed - delivers 11 mg tar and 0.9 mg nicotine - two rows of mechanical perforation. 6/82

Tipping increased (32 to 34 mm). 7/87

SATIN MENTHOL 100

Test marketed - delivers 11 mg tar, 0.9 mg nicotine and 0.39 mg menthol in smoke - two rows of mechanical perforation. 6/82

Tipping increased (32 to 34 mm). 7/87

SATIN 100 - COLORED PACKS

Introduced Satin 100 cigarettes in pink, yellow, and blue packs - cigarettes similar to Satin 100. 11/85

SPRING 85

Spring 85 replaced by Spring 100 in March, 1967 (History of Spring 85 in C.I. 1/72). 3/67

Discontinued.

SPRING 100

Introduced - 100 mm mentholated cigarette with 20 mm CA filter. 3/67

Tar (1 mg) reduced by increasing tipping paper (24 to 27 mm). 11/67

Tar (2 mg) and nicotine (0.2 mg) reduced by increasing tipping paper (27 to 30 mm). 1/68

Filter length increased (20 to 25 mm) - Tar increased (2 mg). 1/69

Reconstituted tobacco increased 6 to 9% - RKS decreased 8 to 5%. 10/70

Reconstituted tobacco increased 11 to 18% - RKS decreased 8 to 0%. 9/71

Expanded tobacco added to blend (9%) - Resulted in lower tobacco weight, rod density, and puff count - Also, lower tar and nicotine deliveries noted. 12/72

Cigarette length (99.2 to 98.4 mm) decreased. Tar (20 to 19 mg) and nicotine (1.1 to 1.0 mg) decreased. 3/75

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SPRING 100 (continued)

Tar (1 mg) decreased by a change in tipping paper (30 to 32 mm). 11/75

Filter length (25 to 27 mm) and fiber denier (6.6 to 7.6 mm) increased - Filler alkaloids increased. 4/76

Cigarette length increased (98.7 to 99.3 mm). 12/76

SPRING LEMON LIGHTS 85

Test marketed in Connecticut - Delivers 9 mg tar and 0.7 mg nicotine - the lemon flavor source is citral. 5/89

SPRING LEMON LIGHTS 85 (MENTHOL)

Test marketed in Connecticut - Delivers 9 mg tar, 0.7 mg nicotine and 0.4 mg smoke menthol - the lemon flavor source is citral. 5/89

SPRING LEMON LIGHTS 100

Test marketed in Connecticut - Delivers 11 mg tar and 0.8 mg nicotine - the lemon flavor source is citral. 5/89

SPRING LEMON LIGHTS 100 MENTHOL

Test marketed in Connecticut - Delivers 11 mg tar, 0.8 mg nicotine and 0.5 mg smoke menthol - the lemon flavor source is citral. 5/89

TRIUMPH 85

Test marketed - 85 mm cigarette delivering 4 mg tar and 0.4 mg nicotine. Characterized by high alkaloid blend (2.8%) containing 19% Freon expanded tobacco. 25 mm dual CA filter with 60% ventilation. 11/78

TRIUMPH MENTHOL 85

Test marketed - 85 mm menthol cigarette delivering 4 mg tar and 0.4 mg nicotine. Characterized by high alkaloid blend (2.8%) containing 19% Freon expanded tobacco. 25 mm dual CA filter with 60% ventilation. 11/78

Tar (5 to 4 mg) and nicotine (0.6 to 0.5 mg) data changed on pack to comply with FTC Report. 5/82

TRIUMPH 100

Test marketed in New York - 100 mm, tar (4.7 mg) and nicotine (0.56 mg) - 6 rows of MP ventilation holes. 3/81

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TRIUMPH MENTHOL 100

Test marketed in New York - 100 mm, tar (4.9 mg) nicotine (0.58 mg) - 7 rows of MP ventilation holes	3/81

TRUE 85

Introduced - king size filter cigarette with dual filter consisting of 10 mm CA and 10 mm polyethylene mouthpiece.	4/66
TPM decreased, 2 mg by increasing filter ventilation.	10/66
Tar decreased (1 mg) - A lower tobacco weight and filler rod TPM noted.	11/68
Reconstituted tobacco increased 10 to 14% - RKS decreased 8 to 3%.	10/70
Reconstituted tobacco increased 13 to 17% - RKS decreased 6 to 2%.	9/71
RKS decreased 2 to 0%.	10/71
Fiber shape changed C to Y-shape - No change in deliveries.	11/72
Expanded tobacco added to blend (9%) - Resulted in lower tobacco weight, rod density, and higher total RTD - Also, lower puff count, tar and nicotine deliveries noted.	12/72
Filter length increased (20 to 25 mm) - Lower tobacco wt. New 5 mg tar version introduced. Lower tar achieved by increased filter ventilation and lower tobacco weight.	10/74
Expanded tobacco level increased (11 to 23%).	7/76
Cigarette length decreased 84.7 to 84.0 mm.	6/78
Tar (5 to 4 mg) data changed on pack to comply with FTC Report.	5/82
Test marketing re-engineered version in New Mexico - uses laser perforation and a lower level of expanded tobacco.	11/83
Re-engineered versions in national distribution - uses laser perforation and lower level of expanded tobacco.	5/84
New package design - silver package with small "True" filter symbol - test marketed in January, 1987 in Minnesota - national in May, 1987.	5/87

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TRUE MENTHOL 85

Introduced - Similar to True filter except for presence of menthol.	9/66
Reconstituted tobacco increased 13 to 17% - RKS decreased 6 to 2%.	9/71
RKS decreased 2 to 0%.	10/71
Fiber shape changed C to Y-shape - No change in deliveries.	11/72
Expanded tobacco added to blend (9%) - Resulted in lower tobacco weight, rod density, and higher total RTD - Also, lower puff count, tar and nicotine deliveries noted.	12/72
Filter length increased 20 to 25 mm - Lower tobacco weight. New 5 mg tar version introduced. Cigarettes are similar to True 85.	1/75 7/76
Lower tar (6.5 to 5.0 mg) and nicotine (0.5 to 0.4 mg) observed correlating with an increase in filter ventilation. Increased filter ventilation resulted from decreasing the number of rows of ventilation holes (from 9 to 5) in the tipping paper and using a more porous combining plug wrap.	2/77
Cigarette length decreased 84.5 to 84.0 mm.	6/78
Test marketing re-engineered version in New Mexico - uses laser perforation and a lower level of expanded tobacco.	11/83
Re-engineered versions in national distribution - uses laser perforation and lower level of expanded tobacco.	5/84
New package design - silver package with small "True" filter symbol - test marketed in January, 1987 in Minnesota - national in May, 1987.	5/87

TRUE GOLD 85

Introduced nationally in a gold pack - cigarette has cork tipping and delivers 10 mg tar and 0.8 mg nicotine.	11/85

TRUE ULTRA ONE 85

Test marketed - ultra low tar (2 mg) and nicotine (0.2 mg) - 25 mm CA filter with 62% ventilation (6 rows of mechanically perforated).	11/80
Discontinued.	

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TRUE 100

Plain - test marketed - 12 mg tar and 0.8 mg nicotine - Blend contains 13% expanded tobacco.	4/74
Cigarette length (99.5 to 97.9 mm) decreased.	6/75
Cigarette length (98.1 to 99.2 mm) increased - Lower tobacco weight and rod density.	6/76
Filter length increased (25 to 27 mm). Tobacco wt. decreased.	7/76
Tar (13 to 8 mg) and nicotine (0.9 to 0.7 mg) decreased resulting from an increase in filter ventilation and a lower tobacco weight. A blend change indicated by a higher filler alkaloid content, lower reducing sugars and a higher expanded tobacco level (9 to 18%).	8/79
Test marketing re-engineered version in New Mexico - uses laser perforation and a lower level of expanded tobacco.	11/83
Re-engineered versions in national distribution - uses laser perforation and lower level of expanded tobacco.	5/84
New package design - silver package with small "True" filter symbol - test marketed in January, 1987 in Minnesota - national in May, 1987.	5/87
Tipping increased (32 to 34 mm).	7/87

TRUE MENTHOL 100

Menthol - Test marketed - 12 mg tar and 0.8 mg nicotine - Blend contains 13% expanded tobacco.	4/74
Cigarette length (99.4 to 98.3 mm) decreased.	6/75
Cigarette length (98.3 to 99.1 mm) increased - Lower tobacco weight and rod density.	6/76
Filter length increased (25 to 27 mm). Tobacco weight decreased.	7/76
Tar (13 to 9 mg) and nicotine (0.9 to 0.7 mg) decreased resulting from an increase in filter ventilation and a lower tobacco weight. A blend change indicated by a higher filler alkaloid content, lower reducing sugars and a higher expanded tobacco level (9 to 18%).	8/79
Test marketing re-engineered version in New Mexico - uses laser perforation and a lower level of expanded tobacco.	11/83
Re-engineered version in national distribution - uses laser perforation and lower level of expanded tobacco.	5/84

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TRUE MENTHOL 100 (cont.)

New package design - silver package with small "True" symbol - test marketed in Minnesota.	1/87
Tipping paper length increased (32 to 34 mm) - no changes were noted in filter length or smoke deliveries.	
New package design - national.	5/87

TRUE GOLD 100 (SOFT PACK)

Introduced nationally in a gold pack - cigarette has white tipping and delivers 11 mg tar and 0.9 mg nicotine.	11/85

TRUE GOLD 100 BOX

Introduced nationally in a gold box - cigarette has white tipping and delivers 11 mg tar and 0.9 mg nicotine.	11/85

YORK 88

Introduced - dual filter, carbon on tow filter - Filter has gas phase activity.	3/64
Introduced - dual filter, bonded carbon filter - Filter has gas phase activity.	4/64
Discontinued.	12/67

YORK 90 (NF)

Introduced - Imperial Size (N-F, 90 mm).	8/61
Dropped from C.I. (History of Brand in C.I. 5/64).	3/64

YORK 100

Introduced - 100 mm cigarette with 20 mm CA filter.	3/67
Discontinued.	12/67

ZACK 80

Introduced - package looks like blue denim - No unusual characteristics.	10/74
Discontinued.	

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LORILLARD COMPANY

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ZACK 85

Introduced - package looks like blue denim - No unusual characteristics. 10/74

Discontinued.

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E. REYNOLDS TOBACCO COMPANY

BRANDON 85 (NF)

Introduced - king size, nonfilter. 2/62

Discontinued. 2/65

BRIGHT 85

Test market - Tar (6 mg), nicotine (0.5 mg) and menthol (0.5 mg) - one row mechanical perforation. 7/82

National distribution. 11/82

Filter length increased (25 to 27 mm) - tobacco weight decreased (0.638 to 0.610 g) - filter RTD increased (4.3 to 4.7 in.). 11/83

More porous cigarette paper (24 to 17 sec.) with increased paper component (0.4 to 0.8%) used on brand - Increased filler menthol (3.1 to 3.4 mg) resulted in higher smoke menthol (0.43 to 0.56 mg). 3/84

Discontinued. 1/87

BRIGHT 100

Test market - Tar (6 mg), nicotine (0.5 mg) and menthol (0.5 mg) - one row mechanical perforation. 7/82

National distribution. 11/82

Increased level of paper component (0.4 to 1.4%) - higher filler menthol (4.1 to 4.5 mg) resulted in higher smoke menthol (0.49 to 0.56 mg). 3/84

Filter length increased (27 to 31 mm) - tobacco weight decreased (0.780 to 0.736 g). 9/84

BROOKWOOD MENTHOL 85

Test marketed - Tar (9 mg) - Cigarette has a high alkaloid blend with filter ventilation consisting of two rows of mechanically perforated holes. Very similar to the Real Menthol 85 already on the market. 8/79

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CAMEL 70 (NF)

Nicotine delivery and filler alkaloids decreased.	1/62
Nicotine delivery and filler alkaloids increased. Also RTD decreased 0.3 inches of H20.	1/65
Expanded tobacco (7%) noted in blend of some cigarettes.	12/69
Expanded tobacco observed in all cigarettes - Tobacco weight lower - No change in tar or nicotine.	3/70
Filler alkaloids reduced (0.2%) correlating with a lower nicotine delivery.	11/75
Level of reconstituted tobacco increased from 9 to 16%.	9/78
Tar (24 to 19 mg), nicotine (1.7 to 1.4 mg), and CO (15 to 11 mg) deliveries were noted as a result in a change to a more porous cigarette paper and a change in the type paper component (phosphate to citrate).	11/80
CO delivery increased (12.6 to 15.8 mg) correlating with a change to less porous paper (17 to 25 sec.) - paper component increased (0.4 to 1.4%).	3/83
Tobacco weight (0.798 to 0.772 g) and rod density (0.233 to 0.224 g/cc) decreased.	12/89

CAMEL FILTER 80 (BOX)

Plain - introduced in flip top box similar to Camel Filter 85 - Tar (19 mg) and nicotine (1.3 mg) deliveries.	10/75

CAMEL FILTER 85

Introduced in three different packages - king size with a 20 mm CA filter.	10/65
Blend change noted in cigarette marketed in brown pack - lower alkaloids resulting in lower nicotine.	4/66
TPM (4 mg) and nicotine (0.2 mg) decreased as result of increase in filter efficiency.	3/67
TPM (2 mg) and nicotine (0.1 mg) decreased as result of change in blend.	4/67
Reconstituted material increased, 19 to 24%.	9/68
Expanded tobacco (9%) noted in blend - no change in tar or nicotine deliveries - Tobacco weight lower.	3/70

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CAMEL FILTER 85 (continued)

The amount of expanded tobacco increased (9 to 12%). Nicotine delivery decreased (0.1 mg). 1-72

Filter length (20 to 21 mm) and tipping paper (24 to 25 mm) increased. Lower tar (1 mg) and nicotine (0.1 mg) deliveries observed. 11/75

Filler alkaloids reduced (0.1%). 4/81

Tar (15.5 to 13.8 mg), nicotine (1.19 to 1.02 mg) and CO (17 to 14.4 mg) decreased - achieved filter ventilation (0 to 13%) by band of ESP holes. 3/83

Test marketed packs containing 12 cigarettes per pack. 7/89

Tobacco weight (0.752 to 0.718 g) and rod density (0.241 to 0.229 g/cc) decreased.

CAMEL FILTER 100

National distribution - delivers 18 mg tar and 1.1 mg nicotine. 7/87

CAMEL MENTHOL 85

Introduced - 85 mm mentholated cigarette with 20 mm CA filter. 9/66

TPM (4 mg) and nicotine (0.2 mg) decreased as result of a blend change. 9/67

Discontinued.

CAMEL LIGHTS 80 (BOX)

Test marketed - Tar (8 mg) and nicotine (0.8 mg) - Similar in characteristics to Camel 85's. 4/80

CO (7.1 to 8.1 mg) increased - change to less porous cigarette paper (16 to 30 sec.) - paper component (0.9 to 1.4%) increased. 8/82

Tobacco weight (0.677 to 0.727 g) and rod density (0.250 to 0.264 g/cc) increased - decreased amount of expanded tobacco (18 to 11%) - decreased total alkaloids observed (1.99 to 1.59%). 9/82

Tar delivery increased (7.8 to 9.1 mg) due to decreased ventilation - Paper component decreased (1.4 to 0.9%). Paper porosity increased (29 to 16 sec.). 5/83

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CAMEL LIGHTS 80 (BOX) (cont.)

Re-engineered - blend contains two different types of reconstituted material - delivers 10 mg tar and 0.7 mg nicotine. 5/86

Tobacco weight (0.674 to 0.652 g) and rod density (0.227 to 0.217 g/cc) decreased. 2/87

CAMEL LIGHTS 85

Introduced on test market - Low delivery cigarettes (10 mg tar and 0.8 mg nicotine) characterized by a 25 mm CA filter with 32% ventilation and a high alkaloid blend. 9/77

Tar (10 to 8 mg) and nicotine (0.9 to 0.8 mg) decreased from an increase in filter ventilation (25 to 35%). 4/80

Test marketed packs containing 12 cigarettes per pack. 3/83

Filter length increased (25 to 27 mm) - rod density increased (0.233 to 0.245 g/cc). 9/83

Less porous cigarette paper (16 to 24 sec.) with higher level of paper component (0.7 to 1.5%). 11/83

A lower level of paper component was observed. 3/88

Tar (9 to 11 mg), nicotine (0.7 to 0.8 mg) and CO (11 to 12 mg) deliveries increased as a result of lower ventilation (24 to 16%). Lower total (134 to 120 mm) and filter (117 to 86 mm) RTD were noted. Tobacco weight (0.689 to 0.642 g) and rod density (0.244 to 0.227 g/cc) decreased. 7/89

CAMEL LIGHTS 100

Introduced - 12 mg tar and 1.2 mg nicotine - Very similar to Winston Lights 100's. 4/79

Tar (11.3 to 9.7 mg), nicotine (0.88 to 0.77 mg) and CO (14.5 to 13.6 mg) deliveries decreased - increased ventilation (20 to 26%) - increased filter length (27 to 31 mm) and weight (0.17 to 0.19 g) - decreased tobacco weight (0.851 to 0.808 g) - tipping paper length increased (34 to 35 mm). 5/84

Filter ventilation increased (16 to 33%) - CO decreased (13.8 to 11.4 mg) - ventilation changed from mechanical to electrostatic perforation - lower total RTD (144 to 117 mm of H20) was noted. 3/85

Tobacco weight (0.822 to 0.778 g) and rod density (0.243 to 0.230 g/cc) decreased. 7/89

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CAMEL TALLS 100

Test marketed - similar to Winston 100 in most characteristics 2/71

Removed from market.

CENTURY 85

National distribution in 33 states - 25 cigarettes per pack - 14 mg tar and 1 mg nicotine. 7/83

New package graphics. 7/87

CENTURY LIGHTS 85

National distribution in 33 states - 25 cigarettes per pack - 9 mg tar and 0.8 mg nicotine. 7/83

New package graphics. 7/87

The tar and CO deliveries decreased as a result of increased ventilation. A shorter tipping paper length (28 to 27 mm) was noted. 5/88

CENTURY 100

National distribution in 33 states - 25 cigarettes per pack - 11 mg tar and 1 mg nicotine. 1/84

New package graphics. 7/87

CENTURY LIGHTS 100

National distribution in 33 states - 25 cigarettes per pack - 11 mg tar and 1 mg nicotine. 1/84

New package graphics. 7/87

CENTURY LIGHTS MENTHOL 100

Test marketed - 25 cigarettes per pack - 12 mg tar, 0.7 mg nicotine and 0.5 mg smoke menthol - 225 cigarettes for the price of 200. 11/85

CHELSEA 100 (BOX)

Test marketed in Florida and Pennsylvania - delivers 10 mg tar and 0.7 mg nicotine - ethylvanillin gives the sidestream smoke a sweet smell. 3/89

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CHELSIA 100 MENTHOL (BOX)

Test marketed in Florida and Pennsylvania - delivers 10 mg tar, 0.7 mg nicotine and 0.7 mg smoke menthol - ethyl vanillin gives the sidestream smoke a sweet smell. 3/89

DAKOTA 80 (BOX)

Test marketed in Texas and Tennessee - delivers 17 mg tar and 1.1 mg nicotine. These cigarettes are targeted toward young women - the blend is not typical of Reynold's brands - 17% reconstituted tobacco and 10% expanded tobacco. 3/90

DAKOTA LIGHTS 80 (BOX)

Test marketed in Texas and Tennessee - delivers 12 mg tar and 0.9 mg nicotine - targeted toward young women. The blend is not typical of Reynold's products - reconstituted tobacco is 17%, expanded stems are 10%. 3/90

DAWN 120

Introduced 120 mm cigarette - white cigarette paper with thin gray parallel lines (filigrain) - Tar (20 mg) and nicotine (1.5 mg) deliveries. 21 mm circumference. 5/75

Discontinued. 12/76

DAWN MENTHOL 120

Introduced 120 mm menthol cigarette - white cigarette paper with thin gray parallel lines (filigrain) - tar (20 mg) and nicotine (1.5 mg) deliveries. 21 mm circumference. 5/75

Discontinued. 12/76

DORAL 85

Plain (85 mm) model introduced - 25 mm filter, 10 mm CA, and 15 mm plastic sections and utilizes filter ventilation. 11/68

Expanded tobacco (6%) noted in blend since Sept., 1969. 11/69

Reconstituted tobacco in blend increased (20 to 23%) in Doral 85 Plain. Tar delivery increased (1 mg) - filter ventilation decreased (30 to 24%). 4/71

Tar delivery increased (1 mg) - Filter ventilation decreased (24 to 21%). 8/71

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DORAL 85 (cont.)

Tar delivery decreased by a change to a more porous cigarette paper and a lower filler alkaloid content - Tar (2 mg) and nicotine (0.1 mg) decreased.

Tar (1 mg) and nicotine (0.1 mg) increased as result of increase in filler rod TPM.

Discontinued.

DORAL MENTHOL 85

Mentholated (85 mm) model introduced - 25 mm filter, 10 mm CA, and 15 mm plastic sections and utilizes filter ventilation.	11/68
A green plug wrap was placed between the plastic mouthpiece and outer plug wrap on Doral Menthol.	6/69
Expanded tobacco (6%) noted in blend since September, 1969.	11/69
The amount of expanded tobacco increased (6 to 8%) and the amount of filter ventilation increased. The tar decreased (1 mg).	2/71
Tar delivery increased (1 mg) - Filter ventilation decreased (30 to 24%).	4/71
Tar delivery increased (1 mg) - Filter ventilation decreased (24 to 21%).	8/71
Tar delivery decreased by a change to a more porous cigarette paper and a lower filler alkaloid content - Tar (2 mg) and nicotine (0.1 mg) decreased.	9/75
Higher tar (12.3 to 13.7 mg) and nicotine (0.9 to 1.0 mg) were noted corresponding to a decrease in filter ventilation.	3/77

Discontinued.

DORAL II 85

Test marketed - These new Doral II cigarettes deliver 5 mg tar and 0.5 mg nicotine - 25 mm CA filter with 60% ventilation and a high level of paper component in the cigarette paper - 19% Freon expanded tobacco in the blend.	2/79

Discontinued.

DORAL II MENTHOL 85

Test marketed - These new Doral II Menthol cigarettes deliver 5 mg tar and 0.5 mg nicotine - 25 mm CA filter with 60% ventilation and a high level of citrate in the cigarette paper - 19% Freon expanded tobacco in the blend.	2/79

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REYNOLDS TOBACCO COMPANY

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DORAL II MENTHOL 85 (cont.)

Tar (5.3 to 3.8 mg), nicotine (0.48 to 0.41 mg) and CO (4.1 to 3.2 mg) lowered - increase in filter ventilation (53 to 65%) lower total RTD (3.6 to 2.8). 4/84

Paper component in cigarette paper decreased - higher puff count (7.2 to 7.5).

Discontinued.

DORAL FILTER LIGHTS 85

Value entry product - test marketed in 13 states - delivers 12 mg tar - contains highest level of reconstituted material (32%). 5/84

National distribution. 7/87

New package graphics.

Levels of reconstituted tobacco (39 to 22%) and expanded tobacco (32 to 25%) decreased resulting in higher alkaloid content and nicotine delivery. Ventilation was added (28%) which resulted in lower tar and CO deliveries and total RTD. 5/88

DORAL FILTER LIGHTS MENTHOL 85

Value entry product - test marketed in 13 states - delivers 12 mg tar - contains highest level of reconstituted material (32%). 5/84

National distribution. 7/87

New package graphics.

Levels of reconstituted tobacco (39 to 22%) and expanded tobacco (32 to 25%) decreased resulting in higher alkaloid content and nicotine delivery. Ventilation was added (32%) which resulted in lower tar and CO deliveries and total RTD. 5/88

The level of expanded tobacco decreased (25 to 19%) resulting in a higher tobacco weight (0.557 to 0.606 g) and rod density (0.203 to 0.213 g/cc). 12/89

DORAL FILTER LIGHTS 100

Value entry product - test marketed in 13 states - first 100 mm cigarette introduced using Doral name. 5/84

National distribution. 7/87

New package graphics.

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DORAL FILTER LIGHTS 100 (cont.)

Levels of reconstituted tobacco (39 to 22%) and expanded tobacco (32 to 25%) decreased resulting in higher alkaloid content and nicotine delivery. Ventilation increased resulting in lower tar and CO deliveries and total RTD. 5/88

Tar (10 to 11 mg), nicotine (0.8 to 0.9 mg) and CO (9 to 10 mg) deliveries increased as a result of lower ventilation (41 to 34%). 12/89

DORAL FILTER LIGHTS MENTHOL 100

Value entry product - test marketed in 13 states - first 100 mm cigarette introduced using Doral name. 5/84

National distribution. 7/87

New package graphics.

Levels of reconstituted tobacco (39 to 22%) and expanded tobacco (32 to 25%) decreased resulting in higher alkaloid content and nicotine delivery. Ventilation increased resulting in lower tar and CO deliveries and total RTD. 5/88

Ventilation decreased (40 to 32%) - resulted in higher total RTD (91 to 125 mm of H_2O), filter RTD (83 to 118 mm of H_2O) and CO delivery (11 to 13 mg). Lower nicotine delivery (0.8 to 0.7 mg) correlated with lower alkaloids (2.2 to 1.9%). 5/89

The level of expanded tobacco decreased (25 to 19%) resulting in a higher tobacco weight (0.696 to 0.738 g) and rod density (0.204 to 0.218 g/cc). 12/89

DORAL FULL FLAVOR 80 (BOX)

Test market - Louisiana - delivers 14 mg tar and 0.8 mg nicotine. 7/87

DORAL FULL FLAVOR 85

Test marketed in New Hampshire - delivers 17 mg tar and 1 mg nicotine - uses phosphate as paper component. 1/87

National distribution. 3/87

Levels of reconstituted tobacco (39 to 22%) and expanded tobacco (32 to 25%) decreased resulting in higher alkaloid content and nicotine delivery. Ventilation (7%) was added. 5/88

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DORAL FULL FLAVOR 100

Test marketed in New Hampshire - delivers 14 mg tar and 0.9 mg nicotine.

Nationally distributed. 3/88

Levels of reconstituted tobacco (39 to 22%) and expanded tobacco (32 to 25%) decreased resulting in higher alkaloid content and nicotine delivery. 5/88

Tipping paper length decreased (36 to 35 mm). 5/89

DORAL FULL FLAVOR MENTHOL 85

Distributed nationally - delivers 16 mg tar, 1.1 mg nicotine and 0.5 mg smoke menthol. 3/89

DORAL FULL FLAVOR MENTHOL 100

Distributed nationally - delivers 15 mg tar, 1.1 mg nicotine and 0.6 mg smoke menthol. 3/89

DORAL ULTRA LIGHTS 85

Introduced nationally - this value entry product delivers 5 mg tar and 0.4 mg nicotine. 5/89

DORAL ULTRA LIGHTS 100

Distributed nationally - delivers 7 mg tar and 0.4 mg nicotine - uses phosphate as the paper component. 3/87

Levels of reconstituted tobacco (39 to 22%) and expanded tobacco (32 to 25%) decreased resulting in higher alkaloid content and nicotine delivery. Increased ventilation resulted in lower tar and CO deliveries and lower total RTD. 5/88

EMBRA 100

100 mm slim cigarettes with 27 mm filter, plain - new type pack and carton. 9/69

Expanded tobacco (6%) noted in blend since August, 1969. 11/69

Tar (4 mg) and nicotine (0.2 mg) increased by changes in paper porosity (11 to 18 sec.) and fiber denier. 2/70

Discontinued by Reynolds in May, 1970. 5/70

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EMBRA MENTHOL 100

100 mm slim cigarettes with 27 mm filter, mentholated, new type pack and carton. 9/69

Expanded tobacco (6%) noted in blend since August, 1969. 1/70

Tar (4 mg) and nicotine (0.2 mg) increased by changes in paper porosity (11 to 18 sec.) and fiber denier. 2/70

Discontinued by Reynolds in May, 1970. 5/70

HORIZON 100

Test marketed in Georgia - delivers 12 mg tar and 0.8 mg nicotine. This product uses ethyl vanillin as the sidestream aroma compound. 5/90

HORIZON 100 (MENTHOL)

Test marketed in Georgia - delivers 12 mg tar, 0.8 mg nicotine and 0.7 mg menthol. This product uses ethyl vanillin as the sidestream aroma compound. 5/90

JAMESTOWN 85

85 mm cigarette - similar to Winston 85 possibly for trademark purposes. 6/70

Discontinued.

MAGNA 80 (BOX)

Distributed in ten cities - generic price - delivers 12 mg tar and 0.8 mg nicotine. 3/87

MAGNA LIGHTS 80 (BOX)

Introduced nationally - this value entry product delivers 9 mg tar and 0.6 mg nicotine. 5/89

MAGNA 85

Distributed in ten cities - generic price - delivers 12 mg tar and 0.8 mg nicotine. 3/87

MAGNA LITES 85

Distributed in ten cities - generic price - delivers 9 mg tar and 0.6 mg nicotine. 3/87

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MAGNA LITES 85 (cont.)

Lower ventilation (22 to 17%) and a change in cigarette paper resulted in higher tar (10 to 11 mg) and nicotine (0.7 to 0.8 mg) deliveries. The cigarette paper is more porous and has a lower level of paper component. A lower total and filter RTD were noted.

MORE 120 (BOX)

Plain - Introduced - 120 mm cigarette with brown colored cigarette and tipping paper. This new cigarette is slimmer (21 mm circumference) and longer (119 mm) than any other cigarette on the market. Two versions introduced - 1 with 3 rows of parallel (mechanically) ventilation holes the length of the cigarette rod and 1 without ventilation holes. 9/74

Tar decrease (22 to 21 mg) by increase in filter ventilation (22 to 36%). A lower total RTD was observed. 9/79

Tar (20.5 to 18.5 mg), nicotine (1.64 to 1.52 mg) and CO (23.2 to 20.4 mg) reduced - lower filler rod TPM (38.1 to 35.1 mg). 1/81

Tar (17.3 to 15.8 mg), nicotine (1.46 to 1.23 mg) and CO (20.4 to 19.3 mg) lowered - increase in filter length (30 to 35 mm) and tipping paper length (35 to 39 mm). 5/81

MORE 120 (BOX)

Tar (15 to 17.1 mg), nicotine (1.19 to 1.36 mg) and CO (21 to 22.8 mg) increased - decreased ventilation (37 to 28%). 11/82

Tobacco weight (0.77: to 0.735 g) and rod density (0.255 to 0.245 g/cc) decreased. 7/89

MORE MENTHOL 120 (BOX)

Menthol - Introduced - 120 mm cigarette with brown colored cigarette and tipping paper. This new cigarette is slimmer (21 mm circumference) and longer (119 mm) than any other cigarette on the market. Two versions introduced - one with 3 rows of parallel (mechanically) ventilation holes the length of the cigarette rod and one without ventilation holes. 9/74

Tar decrease (23 to 22 mg) by increase in filter ventilation (23 to 33%). A lower total RTD was observed. 9/79

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MORE MENTHOL 120 (BOX) (cont.)

Tar (21.2 to 18.8 mg), nicotine (1.75 to 1.53 mg) and CO (23.4 to 19.4 mg) reduced - lower filler rod TPM (38.1 to 35.1 mg).
Tar (18 to 16 mg), nicotine (1.5 to 1.3 mg) and CO (20 to 19 mg) lowered - increase filter length (30 to 35 mm) and tipping paper length (35 to 39 mm). 6/88

Tobacco weight (0.780 to 0.721 g) and rod density (0.259 to 0.239 g/cc) decreased. 7/89

MORE LIGHTS 100 (BOX)

Introduced - a beige colored slim cigarette - targeted for the female market - tar (8 mg) and nicotine (0.6 mg) - expanded tobacco (16%). 6/81

Color of cigarette paper changed to deep tan - design of package changed. 9/84

Tobacco weight (0.678 to 0.639 g) and rod density (0.246 to 0.232 g/cc) decreased. 7/89

MORE LIGHTS MENTHOL 100 (BOX)

Introduced - a beige colored slim cigarette - targeted for the female market - tar (8 mg) and nicotine (0.6 mg) - expanded tobacco (28%). 6/81

Filler menthol increased (2.6 to 3.4 mg) - smoke menthol increased (0.39 to 0.56 mm) - ventilation system changed from mechanical to Hauni laser perforation. 5/84

MORE LIGHTS MENTHOL 100 (BOX) (cont.)

Color of cigarette paper changed to deep tan - design of package changed. Decrease in expanded tobacco (28 to 17%) - increase in tobacco weight (0.603 to 0.684 g) - increase puff count (8.0 to 9.5). 9/84

Tobacco weight (0.678 to 0.638 g) and rod density (0.247 to 0.232 g/cc) decreased. 12/89

MORE LIGHTS 120

Test market - San Francisco and Los Angeles - delivers 12 mg tar and 0.9 mg nicotine - similar to More 120's. 7/87

MORE LIGHTS 120 MENTHOL

Test market - San Francisco and Los Angeles - delivers 12 mg tar, 0.9 mg nicotine and 0.5 mg smoke menthol - similar to More 120's. 7/87

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MORE WHITE LIGHTS 120

Test marketed on East Coast - delivers 9 mg tar and 0.7 mg nicotine - uses white cigarette paper. 1/88

MORE WHITE LIGHTS MENTHOL 120

Test marketed on East Coast - delivers 11 mg tar, 0.7 mg nicotine and 0.5 mg smoke menthol - uses white cigarette paper. 1/89

MR. MENTHOL 85

85 mm mentholated cigarette with 20 mm CA filter. Single row of ventilation holes - Blend does not contain expanded tobacco. 2/70

Discontinued.

NOW 80 (BOX)

Introduced a low tar (0.2 mg) and nicotine (0.03 mg) cigarette. Ultra low delivery achieved by high filter ventilation (85%) and low tobacco weight (82% expanded tobacco). 4/80

NOW 85 (BOX)

Plain - test marketed in a flip-top box - Tar (2 mg) and nicotine (0.2 mg) deliveries - Accomplished primarily by high ventilation and blend composition - Blend contains 50% expanded tobacco and lowest filler weight of any 85 mm cigarette. 12/75

Test marketed in a crush-proof box - Tar (2 mg) and nicotine (0.2 mg) deliveries accomplished by high filter ventilation and blend composition - Blend contains 50% expanded tobacco and has a rod density of 0.170 g/cc. 1/76

Tar and nicotine data on pack changed to 1 mg and 0.1 mg, respectively. Lower tar achieved as result of increased filter ventilation. 12/76

Tar (1 mg) and nicotine (0.1 mg) data listed on pack replaced by statement "Ultra Low Tar." Increase in filler alkaloids noted. 11/77

Tar (2 to 0.6 mg), nicotine (0.2 to 0.06 mg) and CO (2 to <1.0 mg) lowered - increase filter ventilation (68 to 82%) and tipping paper (30 to 35 mm) - tar data on pack changed from 2 to 1 mg. 6/81

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NOW 85 (BOX) (cont.)

Filter length increased (25 to 27 mm) - filter RTD increased (6.1 to 6.5 in. H20) - tobacco weight (0.5[illegible] to 0.505 g) and rod density (0.182 to 0.718 decreased Ventilation system changed from mechanical to laser perfo[illegible]	7/83
Tipping paper length decreased (35 to 31 mm).	1[illegible]
Discontinued - replaced by Now 85 (SP).	[illegible]/77

NOW 85 (SOFT PACK)

Soft pack version marketed in Washington, D.C. Similar to hard box version of Now 85 cigarettes with the exception of a longer cigarette length. "Ultra Low Tar" specified on the package.	11/77
Tobacco weight (0.514 to 0.471 g) and rod density (0.181 to 0.167 g/cc) decreased.	7/89

NOW MENTHOL 85 (BOX)

Menthol - test marketed in a flip top box - Tar (2 mg) and nicotine (0.2 mg) deliveries - Accomplished primarily by high ventilation and blend composition - Blend contains 50% expanded tobacco and lowest filler weight of any 85 mm cigt.	12/75
Menthol - Test marketed in a crush-proof box - Tar (2 mg) and nicotine (0.2 mg) deliveries accomplished by a high filter ventilation and blend composition - Blend contains 50% expanded tobacco and has a rod density of 0.17 g/cc.	1/76
Tar and nicotine data on pack changed to 1 mg and 0.1 mg, respectively. Lower tar achieved as result of increased filter ventilation.	12/76
Tar (1 mg) and nicotine (0.1 mg) data listed on pack changed to 2 mg and 0.2 mg, respectively. Increase in filler alkaloids noted.	11/77
Tar (2 to 0.06 mg), nicotine (0.2 to 0.06 mg) and CO (2 to <1.0 mg) lowered - increase filter ventilation (68 to 82%) and tipping paper (30 to 35 mm) - tar data on pack changed from 2 to 1 mg.	6/81
Filter length increased (25 to 27 mm) - decreased tobacco weight (0.517 to 0.492 g). Ventilation system changed from mechanical perforation to laser perforation.	11/83
Tipping paper length decreased (35 to 31 mm).	1/84
Discontinued - replaced by Now Menthol 85 (SP).	11/77

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NOW MENTHOL 85 (SOFT PACK)

Soft pack version marketed in Washington, D.C. Similar to hard box version of Now Menthol 85 cigarettes with the exception of a longer cigarette length. "Ultra Low Tar" specified on the package.

Tobacco weight (0.487 to 0.468 g) and rod density (0.173 to 0.165 g/cc) decreased.

NOW 100

Test marketed - Tar (2 mg) and nicotine (0.2 mg) - Low delivery achieved by 75% filter ventilation.	3/80
Expanded tobacco (25 to 50%) increased - reconstituted tobacco (22 to 15%) decreased - lower tobacco weight (0.805 to 0.664 g) and rod density (0.229 to 0.185 g/cc).	2/81
Ventilation system changed from three to two rows laser perforation.	5/83
Lower puff count due to less porous paper (14 to 23 sec.) with high level of paper component (0.5 to 1.6%). Increased filter RTD (3.7 to 4.7 in. H20) and filter efficiency (58 to 65%) due to change in fiber denier (3.5/Y to 2.6/Y).	11/83
Tar (2.8 to 3.6 mg), nicotine (0.28 to 0.34 mg) and CO (2.9 to 4.3 mg) increased - decrease in ventilation (74 to 66%) - filter length (27 to 31 mm), filter weight (0.18 to 0.20 g), increased - tobacco weight decreased (0.659 to 0.614 g).	5/84
Tar, nicotine and CO decreased as a result of higher ventilation.	11/87
Tobacco weight (0.621 to 0.576 g) and rod density (0.185 to 0.170 g/cc) decreased.	7/89

NOW 100 (BOX)

Introduced - slim cigarette (22.5 mm), tar (0.00 mg), filter ventilation (95%), and filter RTD (9.5) - blend 100% expanded tobacco.	3/81

NOW MENTHOL 100

Test marketed - Tar (2 mg) and nicotine (0.2 mg) - Low delivery achieved by 75% filter ventilation.	3/80
Expanded tobacco (25 to 50%) increased - reconstituted tobacco (22 to 15%) decreased - lower tobacco weight (0.796 to 0.656 g) and rod density (0.229 to 0.185 g/cc).	2/81

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WOW MENTHOL 100 (cont.)

Tar (2.8 to 1.4 mg) and nicotine (0.25 to 0.18 mg) decreased - ventilation (76 to 82%) increased - CO (0.34 to 0.29 mg) decreased. 1/82

Tar (1.5 to 2.3 mg), nicotine (0.21 to 0.30 mg) and CO (0.9 to 1.8 mg) increased - decreased ventilation (82 to 76%). 5/82

Ventilation system changed from three to two rows laser perforation. 5/83

CO increased (1.6 to 2.5 mg) due to a change to a less porous paper (15 to 25 sec.) with higher level of paper component (0.4 to 1.9%) - Fiber denier decreased (3.2/Y to 2.4/Y) resulting in increased filter RTD (3.8 to 4.6 in. H20) and filter efficiency (54 to 64%). 1/84

Tar (2.5 to 3.4 mg) and CO (2.9 to 3.6 mg) deliveries increased - decreased ventilation (77 to 71%). Filter length increased (27 to 31 mm) - decreased tobacco weight (0.662 to 0.620 g), increased total RTD (3.4 to 4.1 in. H20) filter RTD (4.6 to 5.4 in. H20) and filter weight (0.19 to 0.21 g). 5/84

Tobacco weight (0.584 to 0.572 g) and rod density (0.173 to 0.168 g/cc) decreased. 12/89

PRINCE ALBERT 85

Introduced - king size with a 20 mm CA filter - "pipe tobacco" blend. 8/65

Discontinued.

REAL 85

Introduced - low tar (10 mg) and nicotine (0.8 mg) correlating with a 25 mm high efficiency CA filter with ventilation (27%). Blend contains similar levels of reconstituted material and Freon expanded tobacco typical of other Reynolds' products. Tar (9 mg) listed on pack along with a claim "Nothing Artificial Added." 6/77

Lower tar (10 to 8 mg) and nicotine (0.9 to 0.7 mg) resulting from an increase in filter ventilation (25 to 38%). 5/80

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REAL MENTHOL 85

Introduced - low tar (10 mg) and nicotine (0.8 mg) correlating with a 25 mm high efficiency CA filter ventilation (34%). Blend contains similar levels of reconstituted material and Freon expanded tobacco typical of other Reynolds' products. Tar (9 mg) listed on pack along with a claim "Nothing Artificial Added." 1/85

Filler and smoke menthol levels increased. 4/86

Discontinued. 12/89

RITZ 100 (BOX)

Introduced - flip-top box has Yves Saint Laurent designer logo - cigarettes will be sold at a premium price - delivers 11 mg tar and 0.8 mg nicotine - typical Reynolds blend. 1/85

National distribution. 4/86

Tobacco weight (0.758 to 0.694 g) and rod density (0.244 to 0.222 g/cc) decreased. 12/89

RITZ MENTHOL 100 (BOX)

Introduced - flip-top box has Yves Saint Laurent designer logo - cigarettes will be sold at a premium price - delivers 11 mg tar, 0.8 mg nicotine and 0.7 mg menthol. 1/85

National distribution. 4/86

Tobacco weight (0.772 to 0.734 g) and rod density (0.248 to 0.234 g/cc) decreased. 12/89

SALEM 80 (BOX)

Introduced in flip-top box - Similar to Salem 85. 3/74

Lower filler alkaloids (0.1%) correlating with a lower nicotine delivery. 11/75

Tipping paper length increased (23 to 24 mm). Decrease in tar delivery and puff count noted. 11/76

Decrease in tar (19 to 15 mg) and nicotine (1.2 to 1.1 mg) deliveries corresponding to the use of a more porous cigarette paper and a more efficient filter. 7/77

Reintroduced in test market - uses cork tipping paper - delivers 16 mg tar, 1.1 mg nicotine, and 0.5 mg smoke menthol. 9/85

Discontinued. 8/86

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Reintroduced in Chicago, Illinois - delivers 17 1.1 mg nicotine and 0.5 mg smoke menthol.	5/90
SALEM 85	
Nicotine delivery and filler alkaloids decreased.	1/60
Nicotine delivery and filler alkaloids decreased.	7/6
Nicotine delivery and filler alkaloids increased.	2/65
TPM decreased 1.5 mg by changing paper additive.	3/65
Filter length increased, 17 to 20 mm.	10/66
Expanded tobacco (4%) noted in blend of some cigarettes.	11/69
Tar (1 mg) and tobacco weight decreased by addition of expanded tobacco.	3/70
Filter length (20 to 21 mm) and tipping paper length (24 to 25 mm) increased - No change in smoke deliveries.	2/73
Tar delivery (1 mg) decreased - Cigarette length decreased - puff count lower.	3/73
Lower filler alkaloids (0.1%) correlating with a lower nicotine delivery.	11/75
Cigarette length (84.3 to 84.0 mm) decreased.	2/76
Decrease in tar (18 to 16 mg) and nicotine (1.2 to 1.0 mg) correlating with a change to a more porous cigarette paper.	5/77
Tar (13.7 to 15.2 mg), nicotine (1.04 to 1.19 mg) and CO (13.6 to 15.4 mg) increased - change to a less porous paper (18 to 20 sec.) and a less efficient filter (45 to 40%) - higher filler menthol (1.4 to 2.1 mg) resulted in higher menthol in smoke (0.42 to 0.55 mg). Tobacco wt. (0.783 to 0.745 g) and rod density (0.252 to 0.242 g/cc) decreased - increased paper component (0.6 to 1.3 %).	8/82
Test marketed pack containing 12 cigarettes per pack.	3/83
Ventilation decreased (18% to none) resulting in higher tar (15 to 16 mg), nicotine (1.2 to 1.3 mg), CO (16 to 18 mg), and menthol (0.57 to 0.68 mg) deliveries.	5/83
Paper component level increased (0.6 to 1.5%).	11/83
New package graphics test marketed.	11/87

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Tobacco weight (0.737 to 0.700 g) and rod density (0.237 to 0.224 g/cc) decreased.	7/89

SALEM EXTRA 85

Introduced - Delivers more menthol than current Salem 85 - cork tipping.	10/74
Discontinued.	

SALEM GOLD 85

Introduced Salem Gold 85 nationally - delivers 17 mg tar, 1.2 mg nicotine and 0.2 mg smoke menthol.	3/90

SALEM LIGHTS 85

Menthol - Test marketed - Tar (12 mg) and nicotine (0.8 mg) deliveries - Lower in tar than Salem 85 because of more porous cigarette paper, filter ventilation and an increased filter and tipping paper length.	11/75
Tar delivery (1 mg) decreased by increase in filter ventilation.	4/76
Tar (10 to 8 mg), nicotine (0.8 to 0.6 mg), and CO (13 to 12 mg) decreased resulting from an increase in both filter ventilation (16 to 28%) and tipping paper length (30 to 32 mm).	10/80
Tar (8.6 to 8.2 mg) and CO (10.7 to 8.8 mg) decreased - increased filter ventilation (30 to 42%). Paper porosity decreased (17 to 26 sec.) - paper component increased (0.7 to 1.6%). Tobacco weight (0.714 to 0.689 g) decreased - increased amount of expanded tobacco. (13 to 17%).	10/82
Test marketed pack containing 12 cigarettes per pack.	3/83
Tar (8 to 9 mg), nicotine (0.7 to 0.8 mg), CO (9 to 11 mg), and menthol (0.31 to 0.50 mg) deliveries increased due to decreased ventilation. Ventilation system changed from two to one row of mechanical perforation - decreased paper component - increased cigarette paper porosity.	5/83
Filter length increased (25 to 27 mm), rod density increased (0.237 to 0.244 g/cc).	9/83
Tar (9 to 10 mg), nicotine (0.77 to 0.82 mg) and puff count (7.4 to 7.8) increased - tipping paper length decreased (32 to 31 mm) - filler menthol (2.6 to 2.9 mg) and smoke menthol (0.48 to 0.52 mg) increased.	3/84
New package graphics test marketed.	11/87
Tobacco weight (0.664 to 0.636 g) and rod density (0.234 to 0.224 g/cc) decreased.	7/89

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SALEM ULTRA LIGHTS 85

Name changed from Salem Ultra Lights to Salem Ultra Lights. 3/82

Tar (4.9 to 5.5 mg), nicotine (0.42 to 0.47 mg) and CO (6.1 to 6.7 mg) increased - decreased ventilation (46 to 52%) and less porous paper (18 to 26 sec.) - increased paper component (0.8 to 1.7%). Filter efficiency (58 to 63%) increased - increased filter RTD (99 to 130 mm of H20) - Menthol in smoke (0.50 to 0.42 mg) decreased - lower menthol in filler and filter. 12/82

SALEM ULTRA LIGHTS 85 (cont.)

Filter (25 to 27 mm) and tipping paper (30 to 31 mm) lengths increased. Ventilation system changed from mechanical to Hauni laser. 11/83

New package graphics test marketed. 11/87

SALEM 100

Test marketed - 100 mm long - 20 mm CA filter. 6/67

Tar (4 mg) and nicotine (0.2 mg) reduced by filter length (20 to 25 mm) and tipping paper (24 to 30 mm). 12/67

Tar (2 mg) and nicotine (0.1 mg) decreased by addition of expanded tobacco (6%) - Tobacco weight lower. 10/70

Reconstituted tobacco content of blend increased (22 to 26%). 4/71

Filter length (25 to 27 mm) and tipping paper length (30 to 31 mm) increased - No change in smoke deliveries. 1/73

Lower filler alkaloids (0.1%) correlating with a lower nicotine delivery. 11/75

Name changed from Salem Premium Length 100 to Salem 100. 5/77

Cigarette length increased corresponding to 0.4 mm increase in filter length. 11/77

Tar (15.3 to 13.9 mg) and CO (16.4 to 13.8 mg) decreased - increase in filter ventilation (17 to 28%). 1/81

Tar (14.6 to 17.0 mg), nicotine (1.17 to 1.27 mg) and CO (14.3 to 16.7 mg) increased - change to less porous paper (16 to 24 sec.) and decreased ventilation (25 to 19%). Menthol in smoke (0.43 to 0.69 mg) increased - higher menthol levels in filler and filter. 10/82

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SALEM 100 (cont'd)

pack with 12 cigarettes per pack.	3/83
Co decreased (16 to 14 mg) - change to more porous paper (25 to 17 sec.) with lower level of paper component (1.5 to 0.7%).	5/84
Change to a less porous cigarette paper (14 to 20 sec.) and increased level of paper component (0.8 to 1.6%) - longer tipping paper (31 to 32 mm).	11/85
New package graphics test marketed.	11/87
Increased tar delivery correlated with lower level of paper component.	1/88
Tobacco weight (0.859 to 0.829 g) and rod density (0.241 to 0.232 g/cc) decreased.	7/89

SALEM LIGHTS 100

Introduced - appears to be low delivery (11 mg tar and 0.8 mg nicotine) version of Salem 100 cigarettes. Low delivery achieved by filter ventilation.	10/76
Name changed from Salem Long Lights 100 to Salem Light 100.	5/77
Cigarette length increased corresponding to 0.4 mm increase in filter length.	11/77
Tar (10.3 to 9.8 mg) reduced - lower filter ventilation (33 to 29%) - increase in tipping paper length (31 to 35 mm).	2/81
Filter length increased (27 to 31 mm) - tobacco weight decreased (0.852 to 0.811 g).	6/84
Filter length increased (27 to 31 mm), tobacco weight decreased (0.847 to 0.803 g), smoke menthol lower (0.53 to 0.45 mg) correlated with lower filler menthol content (3.6 to 2.9 mg).	7/84
New package graphics test marketed.	11/87
Tobacco weight (0.774 to 0.750 g) and rod density (0.230 to 0.223 g/cc) decreased.	7/89

SALEM LIGHTS 100 "CUSTOM CASE"

Test marketed in an eight sided package in Richmond, Fort Wayne, Milwaukee and Houston. Higher smoke deliveries on this new brand - a result of lower ventilation and a less efficient filter - smaller circumference, lower tobacco weight and shorter cigarette length were also noted.	3/87

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SALEM SLIM LIGHTS 100 (BOX)

Tar data changed on pack (9 to 8 mg) to comply with FTC Report.	6/82
New package graphics test marketed.	11/87

SALEM ULTRA 100

Name change to Salem Ultra Lights 100.	3/82

SALEM ULTRA LIGHTS 100

Tar (4.6 to 6.0 mg), nicotine (0.46 to 0.54 mg) and CO (6.0 to 7.9 mg) increased - change to a less porous paper (17 to 24 sec.) - increased paper component (0.8 to 1.5%). Tobacco weight (0.829 to 0.840 g) and rod density (0.236 to 0.241 g/cc) increased - decreased amount of expanded tobacco (28 to 16%) - Menthol in smoke (0.37 to 0.47 mg) increased - total and filter RTD increased.	12/82
Tar (5.3 to 6.1 mg) and CO (6.2 to 7.2 mg) increased - decreased ventilation (60 to 56%). Increased filter length (27 to 31 mm) and filter weight (0.20 to 0.22 g) - decreased tobacco weight (0.831 to 0.789 g). Ventilation system changed from mechanical to Hauni laser.	5/84
New package graphics test marketed.	11/87
Tobacco weight (0.789 to 0.769 g) and rod density (0.234 to 0.228 g/cc) decreased.	12/89

STERLING SPECIAL BLEND 85 (SOFT PACK)

Introduced in black soft pack - similar in design to Sterling Special Blend (Box) - delivers 9 mg tar and 0.6 mg nicotine.	5/85
Discontinued.	1/87

STERLING SPECIAL BLEND 94 (BOX)

National distribution - delivers 12 mg tar and 0.9 mg nicotine - packed in black pack - 94 mm cigarette length.	1/84
Discontinued.	1/87

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STRAIGHT BLEND MENTHOL 94 (BOX)

National distribution - delivers 12 mg tar and 0.9 mg nicotine - packed in black pack - 94 mm cigarette length. 1/84

Discontinued. 1/87

TEMPO 85

Test marketed - dual carbon filter king size soft pack - fused carbon inner plug high gas phase activity. 4/64

Polyethylene pellets added to charcoal filter - decrease in gas phase activity - blend change indicated by an increase in filler alkaloids and decrease in reducing sugars. 1/65

Nicotine delivery and filler alkaloids increased. 4/65

Gas phase activity of filter decreased. 2/66

TPM (5 mg) and nicotine (0.5 mg) decreased as result of changes in blend, cigarette paper, and filter. 12/66

Reconstituted tobacco content increased (17 to 23%). 3/67

Tar (4 mg) and nicotine (0.2 mg) reduced by change in filter length (20 to 25 mm) and in tipping paper (24 to 30 mm). 5/68

Tar (2 mg) reduced as a result of introduction of Hauni-type ventilation (27%) - A higher gas phase smoke index and lower total and filter RTD were noted. 10/68

Tar (2 mg) and nicotine (0.1 mg) increased by reduction in the amount of filter ventilation. 7/69

Tar (1 mg) and nicotine (0.1 mg) reduced by an increase in filter ventilation - Reduction in total and filter RTD was noted. 7/70

Package overwrap changed from cellophane to polypropylene. 8/70

Expanded tobacco observed in blend (3%) - Paper porosity changed (12 to 8 seconds) - Tar increased (1 mg). 10/71

Expanded tobacco increased (4 to 8%). Lower tobacco weight and rod density noted - Cigarette paper porosity changed (17 to 12 seconds). 3/72

Tar (5 mg) and nicotine (0.3 mg) reduced by increased filter efficiency and filter ventilation - Fiber denier of outer filter changed from 3.2 to 1.9 - Expanded tobacco increased from 7 to 11%. 2/76

Discontinued.

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UPTOWN 80 MENTHOL (BOX)

Introduced and then withdrawn from Philadelphia test market. Intentionally packaged upside down in a black and gold pack - delivers 17 mg tar, 1.2 mg nicotine and 0.6 mg smoke menthol. 1/90

UPTOWN 85 MENTHOL

Introduced and then withdrawn from Philadelphia test market. Intentionally packaged upside down in a black and gold pack - delivers 17 mg tar, 1.2 mg nicotine and 0.6 mg smoke menthol. 1/90

VANTAGE 85

A new low tar (11 mg) and nicotine (0.9 mg) cigarette with a new 25 mm geometrically shaped cellulose acetate filter - High alkaloids content and blend contains 8% expanded tobacco - Tar (11 mg) and nicotine (0.9 mg) listed on pack. 7/70

Filter shape of cigarettes modified and is similar to that of Vantage 100. A 25% reduction in filter weight resulted from this change in filter shape. 3/79

Incorporation of filter ventilation (19%) resulted in lower tar (10 to 9 mg) and nicotine (0.9 to 0.8 mg) deliveries. 5/79

Tar (9 to 10 mg) increased resulting from the elimination of filter ventilation. Vantage 85 cigarettes manufactured during April, May and June, 1979, had filter ventilation. 8/79

Incorporation of filter ventilation (16%) resulted in lower tar (10 to 9 mg). 3/8[illegible]

Test marketed pack containing 12 cigarettes per pack. 3/83

Test marketed new package design in Washington State and Oklahoma. The "bulls-eye" was replaced by a band of red, gold and blue stripes. 3/86

New package design in national distribution. 11/86

Tar, nicotine and CO deliveries increased as a result of lower ventilation. 9/87

Ventilation increased (10 to 28%) resulting in lower tar (10 to 8 mg) and CO (13 to 12 mg) deliveries and a lower total RTD (146 to 136 mm of H_2O). Lower nicotine delivery (0.7 to 0.6 mg) correlated with lower total alkaloids (2.0 to 1.8%) - type of perforation changed from ESP to Hauni Laser. 5/89

Increased level of expanded tobacco (16 to 20%) resulted in a lower tobacco weight (0.677 to 0.657 g) and rod density (0.238 to 0.224 g/cc). 7/89

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VANTAGE MENTHOL 85

Similar to the Vantage plain except for menthol.	4/71
Filter design changed to circular openings at each end and constricted in the middle.	1/73
Menthol in smoke delivery decreased resulting from lower filler menthol content.	1/74
Tar (9.8 to 8.6 mg), nicotine (0.77 to 0.69 mg) and CO (15.2 to 12.6 mg) lowered - introduction of filter ventilation (14%) with one row of MP holes. Tar data listed on pack changed (11 mg to 9 mg).	2/81
Tar (9.4 to 7.9 mg) and CO (12.2 to 8.8 mg) deliveries decreased resulting from increased ventilation (16 to 40%) fiber denier and shape (1.8/R to 3.3/Y) changed - correlated with lower filtration efficiency (63 to 54%) - a less porous cigarette paper (16 to 20 sec.) with increased paper component (0.9 to 1.4%) was noted.	1/85
Package with multicolored stripes replaces "bull's-eye" package.	11/86
Filter changed to a tow-in-tow filter - higher smoke deliveries correlated with this change - higher smoke menthol delivery correlated with increased filter menthol.	1/87
Tobacco weight (0.714 to 0.684 g) and rod density (0.244 to 0.232 g/cc) decreased.	12/89

VANTAGE 100

Low tar (11 mg) and nicotine (0.8 mg) cigarette characterized by a high efficiency filter containing 18% ventilation. A modified version of the Filtrona filter used on Vantage 85 cigarettes. Tar (11 mg) and nicotine (0.9 mg) listed on pack.	1/77
Name changed from Vantage Long 100 to Vantage 100.	4/77
Cigarette length increased corresponding to 0.4 mm increase in filter.	11/77
Tar (10.0 to 7.5 mg), nicotine (0.80 to 0.67 mg) and CO (15.1 to 11.9 mg) lowered - increase in filter ventilation (18 to 30%). Tar data listed on pack changed (12 to 9 mg).	2/81
Increase in tar (7.6 to 9.0 mg) and CO (11.7 to 13.0 mg) as result of a change in paper porosity (13 to 17 sec.).	8/81

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VANTAGE 100 (cont.)

Total and filter RTD increased and filter efficiency decreased due to change in fiber denier and shape (1.7/R to 2.6/Y).

Test marketed new package design in Washington State and Oklahoma. The "bulls-eye" was replaced by red, blue and gold bands.

New package design in national distribution.

Tobacco weight (0.825 to 0.781 g) and rod density (0.231 to 0.219 g/cc) lowered - no changes in smoke deliveries. 3/89

VANTAGE EXCEL 100

Test marketed in Michigan, Arkansas and Louisiana - cigarette paper uses magnesium hydroxide - the blend contains 77% expanded tobacco - advertising claims there is "less lit end smoke" - cigarette delivers 9 mg tar and 0.7 mg nicotine. 1/89

Discontinued 12/89

VANTAGE MENTHOL 100

Introduced - Tar (10 mg) and nicotine (0.8 mg) - filter configuration different from Vantage 100 resulting in higher total and filter RTD. 10/82

Filter length increased (27 to 31 mm) - tobacco weight decreased (0.839 to 0.792 g). Tipping paper length increased (34 to 35 mm). Lower nicotine (0.82 to 0.66 mg) and lower total alkaloid (1.95 to 1.78%) content observed. Ventilation system changed from mechanical to Hauni laser perforation. 9/84

Package with multicolored stripes replaced "bull's-eye" package. 11/86

Filter changed to a tow-in-tow filter - higher smoke deliveries correlated with this change - higher smoke enthol delivery correlated with increased filler menthol. 3/87

Tobacco wight (0.802 to 0.754 g) and rod density (0.237 to 0.224 g/cc) decreased. 7/89

VANTAGE ULTRA LIGHTS 85

Test marketed - New cigarette delivers 6 mg tar and 0.7 mg nicotine. 25 mm CA filter and 32% filter ventilation. This new Vantage Ultra Lights 85 cigarette has a higher filler alkaloid content than the regular Vantage 85 cigarettes. 6/79

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VANTAGE ULTRA LIGHTS 85 (cont.)

Filter changed to CA - expanded tobacco (28 to 17%), tobacco weight (0.630 to 0.697 g), filter ventilation (35 to 55%), tar (6.3 to 5.1 mg) and CO (9.4 to 5.5 mg) decreased.	4/81
CO (5.0 to 6.8 mg) increased - change to less porous paper (16 to 26 sec.) - Increased paper component, puff count decreased. Tobacco weight (0.698 to 0.616 g) decreased - amount of expanded tobacco (17 to 20%) increased.	7/82
Filter length increased (25 to 26 mm).	10/82
Test marketed Filtrona-type filter.	5/83
Filter (26 to 27 mm) and tipping paper (30 to 31 mm) lengths increased - Ventilation system changed from mechanical to Hauni laser perforation.	11/83
Package with multicolored stripes replaces "bull's eye" package.	11/86
Tobacco weight (0.610 to 0.592 g) and rod density (0.215 to 0.208 g/cc) decreased.	12/89

VANTAGE ULTRA LIGHTS MENTHOL 85

National distribution - tar (5 mg) - similar to Vantage Ultra Lights 85 already on the market.	7/82
Test marketed Filtrona-type filter.	5/83
Filter (25 to 27 mm) and tipping paper (30 to 31 mm) lengths increased - ventilation system changed from mechanical to Hauni laser.	11/83
Discontinued.	9/86

VANTAGE ULTRA LIGHTS 100

Introduced - Tar (5 mg) and nicotine (0.5 mg) - Low delivery achieved by a filter ventilation of 47% - Blend contains 19% expanded tobacco.	10/79
Paper component in the cigarette paper decreased-higher puff count (8.6 to 9.2).	4/81
Filter changed to CA - expanded tobacco (28 to 17%), tobacco weight (0.791 to 0.836 g), filter ventilation (45 to 58%) increase - tar (5.2 to 5.6 mg) and CO (7.9 to 5.8 mg).	5/81

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VANTAGE ULTRA LIGHTS 100 (cont.)

Tobacco weight (0.847 to 0.751 g) decreased - increased amount of expanded tobacco (17 to 20%). Lower filler rod TPM (29.0 to 26.2 mg) and puff count (10.7 to 9.0 mg) observed. Cigarette length shortened (99.4 to 99.0 mm).	7/82
CO (5.6 to 6.3 mg) increased - change to a less porous paper (17 to 24 sec.) - Increased paper component (0.8 to 1.3%).	8/82
Test marketed Filtrona-type filter.	/83
CO (6.4 to 5.6 mg) decreased - change to a more porous paper (24 to 16 sec.) with lower level of paper component (1.6 to 0.9%).	1/84
CO (5.7 to 7.2 mg) increased - change to a less porous paper (16 to 26 sec.) - Filter weight (0.20 to 0.22 g), filter length (27 to 31 mm) and tipping paper length (34 to 35 mm) increased - tobacco weight decreased (0.770 to 0.714 g).	5/84
Package with multicolored stripes replaces "bull's eye" package.	11/86
Tobacco weight (0.729 to 0.709 g) and rod density (0.216 to 0.209 g/cc) decreased.	12/89

VANTAGE ULTRA LIGHTS MENTHOL 100

National distribution - Tar (5 mg) similar to Vantage Ultra Lights 100 already on the market.	7/82
Test marketed Filtrona-type filter.	5/83
CO (6.9 to 6.0 mg) decreased due to more porous cigarette paper (24 to 16 sec.) with less paper component (1.5 to 0.8%).	11/83
Filter length increased (27 to 31 mm) - tobacco weight decreased (0.727 to 0.665 g). Tipping paper length increased (34 to 35 mm) - larger fiber denier (2.5 to 3.0) correlated with higher filter RTD (135 to 155 mm H20).	9/84
Blend change noted - changes in total alkaloids, total reducing sugars, filler rod TPM, reconstituted tobacco, and expanded tobacco resulted - correlated with higher tobacco weight and rod density - less porous cigarette paper with an increased level of paper component and a higher puff count were observed - no changes in smoke deliveries.	9/86
Discontinued.	9/86

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WINCHESTER 85

Plain - Introduced - Tar (18 mg) and nicotine (1.3 mg) No unusual characteristics.	10/74
Discontinued.	

WINCHESTER MENTHOL 85

Menthol - Introduced - Tar (18 mg) and nicotine (1.3 mg) - No unusual characteristics.	4/74
Discontinued.	

WINSTON 80 (BOX)

Nicotine delivery and filler alkaloids decreased.	9/60
Nicotine delivery and total alkaloids decreased. Reducing sugars increased.	6/61
Lighter filter of same efficiency.	11/61
Alkaloids reduced by 0.2%.	12/62
Total alkaloids reduced.	5/63
Nicotine delivery and filler alkaloids increased.	2/65
Tar (2 mg) and nicotine (0.1 mg) decreased by addition of expanded tobacco (8%) - Tobacco weight lower.	3/70
The amount of expanded tobacco increased (8 to 10%). A lower tobacco weight and rod density were observed.	2/71
Filter length (17 to 19 mm) and tipping paper length (21 to 23 mm) increased - Tar (1 mg) and nicotine (0.1 mg) decreased.	3/73
Lower filler alkaloids (0.1%).	11/75
Tipping paper length increased (23 to 24 mm). Decrease in tar delivery (19 to 18 mg).	10/76
Tar (18 to 16 mg) and nicotine (1.3 to 1.1 mg) decreased by a change to a more porous paper and a more efficient filter.	1/80
New package graphics.	11/88
Tobacco weight (0.736 to 0.698 g) and rod density (0.249 to 0.236 g/cc) decreased.	7/89

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WINSTON 85

Nicotine delivery and filler alkaloids decreased.	9/60
Lighter filter of same efficiency.	11/61
TPM and nicotine reduction (1.5 mg and 0.2 mg) - alkaloids reduced.	4/63
Nicotine delivery and filler alkaloids increased.	2/65
Filter length increased, 17 to 20 mm - No change in smoke deliveries.	8/66
Expanded tobacco (6%) noted in blend of some cigarettes.	11/69
Tar (1.5 mg) and nicotine (0.1 mg) decreased by addition of expanded tobacco (7%). Tobacco weight lower.	3/70
The amount of expanded tobacco increased (7 to 10%). A lower tobacco weight was noted.	3/71
Filter length (20 to 21 mm) and tipping paper length (24 to 25 mm) increased. These changes increased filter efficiency and tar delivery decreased 1 mg.	12/72
Lower filler alkaloids (0.1%) correlating with a lower nicotine delivery.	11/75
Cigarette length (84.7 to 84.0 mm) decreased.	2/76
Tar (19 to 16 mg) and nicotine (1.4 to 1.0 mg) decreased as result of a change to a more porous paper and a more efficient filter.	2/80
Tar (14.8 to 14.0 mg) - filter ventilation by band of E.S.P. holes.	5/81
Test marketed pack containing 12 cigarettes per pack.	3/83
Tar (14.5 to 16.0 mg) and nicotine (1.1 to 1.2 mg) increased due to increased filler rod TPM (30.2 to 33.4), fiber denier (2.6/Y to 3.6/Y) and decreased paper component (1.6 to 0.4%).	7/83
New package graphics.	11/88
Tobacco weight lowered (0.751 to 0.714 g) - this resulted in lower total RTD (128 to 118 mm of H_2O), puff count (8.7 to 8.1) and ventilation level (9 to 6%) - higher total alkaloid level (1.9 to 2.0%) was observed - no changes were noted in smoke deliveries.	1/89

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WINSTON LIGHTS 80 (BOX)

Nationally introduced - blend contains two different types of reconstituted material - delivers 10 mg tar and 0.6 mg nicotine.

New package graphics.

Tobacco weight (0.682 to 0.657 g) and rod density (0.229 to 0.221 g/cc) decreased.

WINSTON LIGHTS 85

Introduced - 14 mg tar and 1.1 mg nicotine - 25 mm filter and ventilated - Blend contains 14% expanded tobacco.	7/74
Lower filler alkaloids (0.1%) correlating with a lower nicotine delivery.	11/75
Tar (12 to 10 mg), nicotine (0.9 to 0.8 mg), and CO (13 to 10 mg) deliveries were lowered as result of an increase in filter ventilation (16 to 25%). Filter ventilation increased by increasing number of ventilation holes from one row to two rows of mechanically perforated holes.	12/80
The tipping paper was changed from white to cork. The word "lights" on the tipping paper was removed and only the name Winston now appears on the cigarette.	12/81
Tar (9.4 to 8.4 mg) and CO (11.2 to 10.0 mg) decreased - increased ventilation (26 to 36%). Lower tobacco weight (0.736 to 0.715 g) and rod density (0.254 to 0.248 g/cc) observed.	9/82
Filter length increased (25 to 26 mm).	10/82
Test marketed pack containing 12 cigarettes per pack.	3/83
Filter (26 to 27 mm) and tipping paper (30 to 31 mm) lengths increased - rod density increased (0.244 to 0.249 g/cc) - Ventilation system changed from one row laser to one row mechanical perforation. Total and filter RTD increased.	9/83
Tar (9 to 11 mg), nicotine (0.7 to 0.9 mg) and CO (9 to 11 mg) increased - decreased ventilation (32 to 24%). Less porous paper (17 to 24 sec.) - ventilation changed from mechanical to electrostatic perforation.	1/84
Test marketed in Cleveland, Ohio with white tipping paper. No differences were observed in smoke deliveries.	3/88

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WINSTON LIGHTS 85 (cont.)

Lower tar (10 to 9 mg), nicotine (0.7 to 0.6 mg) and CO (12 to 11 mg) deliveries resulted from a change to a more porous paper (19 to 15 seconds) - lower total RTD was observed. Ventilation type changed from electrostatic to laser perforation. 7/88

New package graphics. /88

Tobacco weight (0.682 to 0.657 g) and rod density (0.229 to 0.221 g/cc) decreased. 7/89

WINSTON ULTRA 85

Test marketed - ultra low tar (3 mg) with a 25 mm CA filter and 60% filter ventilation - blend contains 25% expanded tobacco. 10/80

Tar (3.4 to 4.6 mg), nicotine (0.39 to 0.46 mg), and CO (4.0 to 5.5 mg) increased - lower filter ventilation (59 to 55%) - lower filter RTD (4.5 to 3.8), tobacco weight (0.645 to 0.609 mg) and rod density (0.222 to 0.209 g/cc) - increase in expanded tobacco (23 to 34%). 2/81

Name changed to Winston Ultra Lights 85. 12/81

WINSTON ULTRA LIGHTS 85

Name changed from Winston Ultra 85. The tipping paper was changed from white to cork. 12/81

Tar (4.9 to 5.4 mg) and CO (4.4 to 6.3 mg) increased. A higher total and filter RTD were observed. Ventilation system changed from 2 to 1 row of mechanical perforation, lower ventilation noted (51 to 44%). 5/82

Tobacco weight (0.594 to 0.638 g) and rod density (0.206 to 0.220 g/cc) increased - decreased amount of expanded tobacco (30 to 20%). 8/82

Filter length increased (25 to 26 mm) - CO delivery increased (6.0 to 7.6 mg) due to change to less porous paper (17 to 23 sec.) - paper component increased (0.8 to 1.6%). 3/83

Filter length (26 to 27 mm) increased rod density decreased (0.216 to 0.211 g/cc). 9/83

Tipping paper length decreased (32 to 31 mm). 1/84

New package graphics. 11/88

Tobacco weight (0.601 to 0.573 g) and rod density (0.212 to 0.203 g/cc) decreased. 12/89

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WINSTON 100

Test marketed - 100 mm long - 20 mm CA filter.	6/68
Tar (6 mg) and nicotine (0.3 mg) reduced by increase in filter length (20 to 25 mm) and tipping paper (24 to 30 mm).	11/68
Tar (1 mg) and nicotine (0.1 mg) increased by a blend change.	4/69
Expanded tobacco (6%) noted in blend of some cigarettes.	12/69
Tar (1 mg) and nicotine (0.1 mg) decreased by addition of expanded tobacco (7%) - Tobacco weight lower.	3/70
The amount of expanded tobacco increased (7 to 11%). A lower tobacco weight and rod density were noted.	3/71
Filter length (25 to 27 mm) and tipping paper length (30 to 31 mm) increased. Lower tar (1 mg) and nicotine (0.1 mg) observed.	9/73
Lower filler alkaloids (0.1%) correlating with a lower nicotine delivery.	11/75
Cigarette length (99.4 to 99.0 mm) decreased.	2/76
Cigarette length increased corresponding to 0.4 mm increase in filter length.	11/77
Pack color changed from gold to red.	1/82
Tar (14.1 to 16.4 mg), nicotine (1.02 to 1.25 mg) and CO (15.8 to 16.6 mg) increased - change to a less porous paper (17 to 25 sec.). Increased paper component (0.8 to 1.2%).	9/82
Test marketed pack containing 12 cigarettes per pack.	3/83
Tipping paper length increased (31 to 32 mm) - no changes in smoke deliveries.	7/84
Tar increased (16.0 to 17.4 mg) - ventilation decreased (17 to 10%) - lower nicotine (1.22 to 1.13 mg) and alkaloids (1.94 to 1.57%) - lower paper component (1.4 to 0.4%).	3/85
New package graphics.	11/88
Tobacco weight (0.879 to 0.781 g) and rod density (0.238 to 0.232 g/cc) decreased.	7/89

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WINSTON LIGHTS 100

Introduced - 14 mg tar and 1.1 mg nicotine - High efficiency 27 mm CA filter with 15% ventilation - tipping paper.	3/77
Cigarette length increased corresponding to 0.4 mm increase in filter length.	11/77
Lower tar (13 to 12 mg) correlating with a more efficient filter.	5/79
Test marketed pack containing 12 cigarettes per pack.	3/83
Tar (12.1 to 11.1 mg) and nicotine (0.94 to 0.86 mg) decreased - increase in filter length (27 to 31 mm), filter weight (0.16 to 0.19 mg), and tipping paper length (34 to 35 mm).	5/84
Lower CO delivery (15 to 12 mg) correlated with increased ventilation (17 to 30%) and decreased efficiency (61 to 56%) - lower total RTD and filter RTD were noted.	5/85
Test marketed in San Francisco - has a 24 mm circumference and a 98 mm cigarette length - delivers 10 mg tar and 0.7 mg nicotine.	9/86
National distribution.	10/86
Test marketed in Cleveland, Ohio with white tipping paper. No differences were observed in smoke deliveries.	3/88
New package graphics.	11/88
Tobacco weight (0.807 to 0.781 g) and rod density (0.238 to 0.232 g/cc) lowered - no changes were noted in smoke deliveries.	3/89

WINSTON ULTRA 100

Test marketed - ultra low delivery (4 mg) - 28 mm CA filter with 52% filter ventilation - blend contains 25% expanded tobacco.	10/80
Name changed to Winston Ultra Lights 100.	12/81

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WINSTON ULTRA LIGHTS 100

Name changed from Winston Ultra 100. The tipping paper was changed from white to cork.	2/81
Expanded tobacco amount decreased (29 to 21%) - increased filter weight (0.18 to 0.20 g) resulted in increased filter RTD (124 to 140 mm H20).	8/
Filter length (27 to 31 mm), filter weight (0.20 to 0.22 g) and tipping paper length increased (34 to 35 mm) - tobacco weight decreased (0.770 to 0.723 g).	5/8
New package graphics.	11/88
Tobacco weight (0.724 to 0.698 g) and rod density (0.214 to 0.207 g/cc) decreased.	12/89

WINSTON MENTHOL 100

Test marketed - 100 mm long - 20 mm CA filter.	1/67
Tar (4 mg) and nicotine (0.2 mg) reduced by increase in filter length (20 to 25 mm) and tipping paper (24 to 30 mm).	12/67
Tar (2 mg) decreased by addition of expanded tobacco (6%) - Tobacco weight lower.	10/70
Filter length (25 to 27 mm) and tipping paper length (30 to 31 mm) increased - No change in smoke deliveries.	1/73
New silver package - High menthol in smoke, filler, and filter.	8/74
Lower filler alkaloids (0.1%) correlating with a lower nicotine delivery.	11/75
Cigarette length increased corresponding to 0.4 mm increase in filter length.	11/77
Discontinued.	

Source: https://www.industrydocuments.ucsf.edu/docs/nsdl0000